

3rd Annual

STATE OF THE CIO



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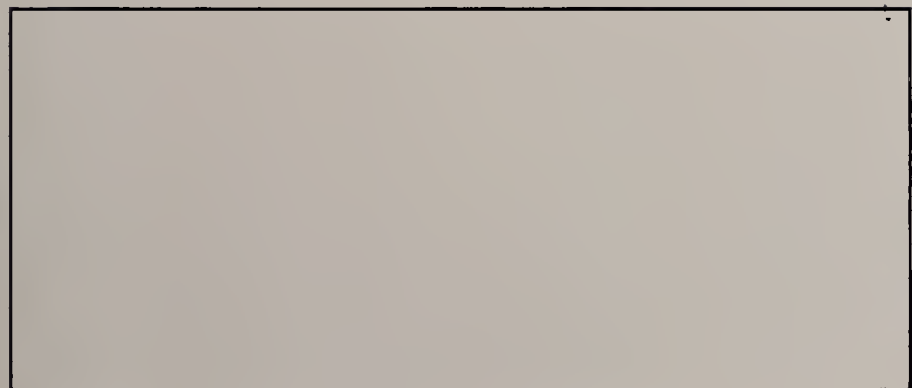
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 - > Raise Your Internal Profile
 - > Align Tactics With Strategy
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- Starts on Page 50

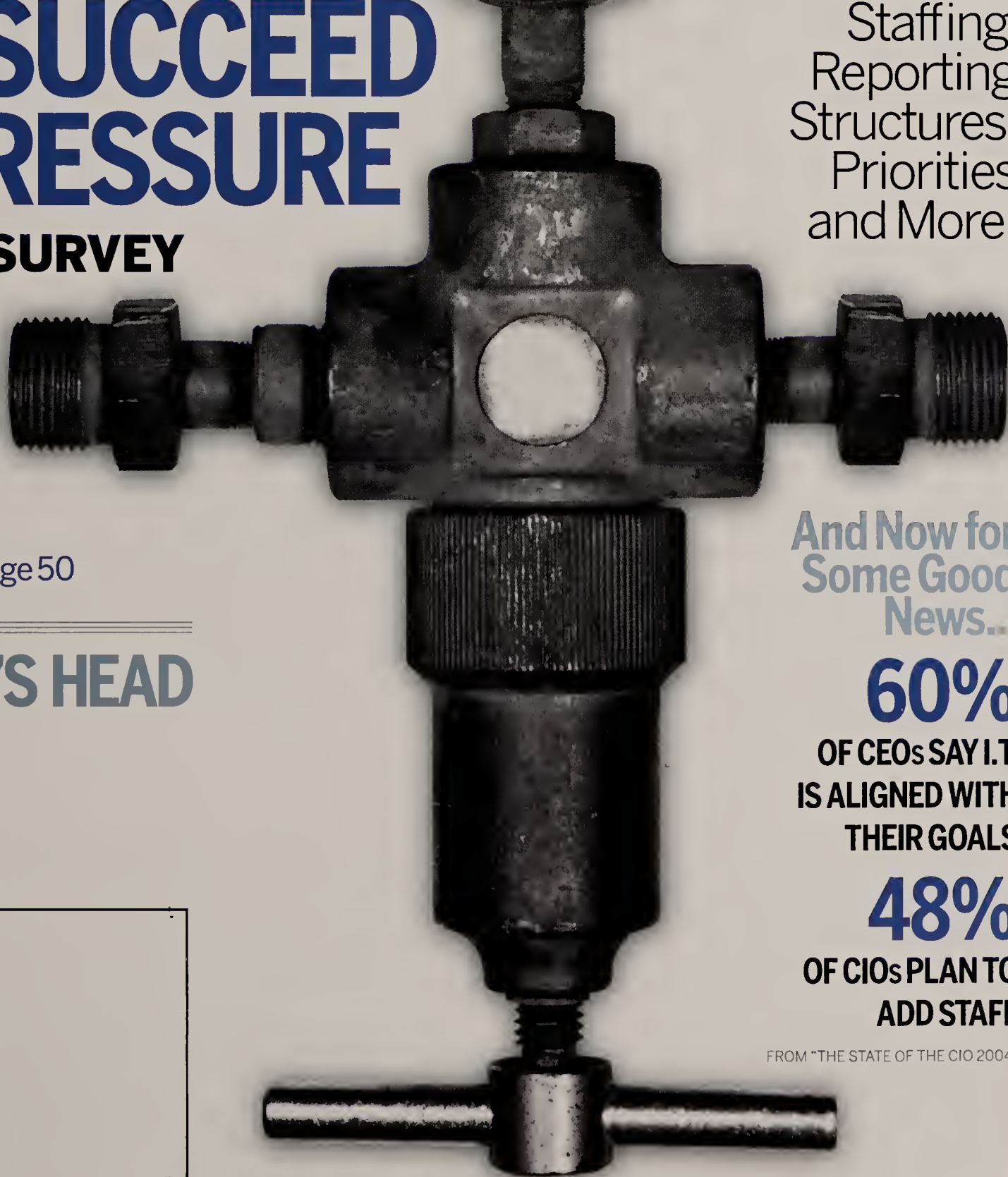
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STATE OF THE CIO 2004

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HOW TO SUCCEED UNDER PRESSURE

Our third annual survey of more than 500 heads of IT tells us what successful CIOs are doing to meet a host of new challenges...and what others are failing to do.

By Edward Prewitt

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Your business skills are needed more than ever, the pressure to cut costs is unrelenting, and your relationships with your business peers could be improved. On the plus side, you're planning to add staff and your CEO may have more faith in you—and in IT—than you think.

By Edward Prewitt, with Lorraine Cosgrove Ware

ROLE

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In the end, to whom the CIO reports matters less than whether he or she is a member of the executive team and a valued company player. *By Stephanie Overby*

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Most CIOs think they're strategic, but many CEOs are focused on IT's supporting role. It's your job to get in tune with the corporate vision. *By Meridith Levinson*

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The CEO is pushing you for new systems that create competitive advantage. The CFO is pulling you to cut costs. How to strike a balance without being torn apart. *By Ben Worthen*

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The biggest challenge for CIOs is business executives' unrealistic expectations of what IT can do. Here's how to lead business to a more realistic understanding of IT's role.

By Thomas Wailgum

MORE ►►►



Suzanne Gordon, CIO of SAS, suggests cutting corners on routine investments to pay for strategic projects.

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Automated systems are helping businesses make decisions more productively and consistently. But they're also making a lot of entry-level jobs obsolete. Executives had better be prepared to manage the transition.

By Tom Davenport

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Today's IT workforce is mostly white. Tomorrow's may not be. Now is the time to build an IT organization that welcomes everyone.

By Monte Ford

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Sixty-two percent of organizations are operating under a significant application backlog.

Is yours one of them? *By Gary Beach*

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Barbara Koster, Prudential Financial's new CIO, has a tough act to follow.

In Every Issue

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IT chiefs increasingly are uneasy about the nature of the CIO role. To improve the state of the CIO, first you have to examine the data. *By Abbie Lundberg*

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The Career Path of the Complete CIO

The verdict is in: Business skills trump technology.

By Ted Smalley Bowen

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Who Really Runs IT: The many methods of IT governance.

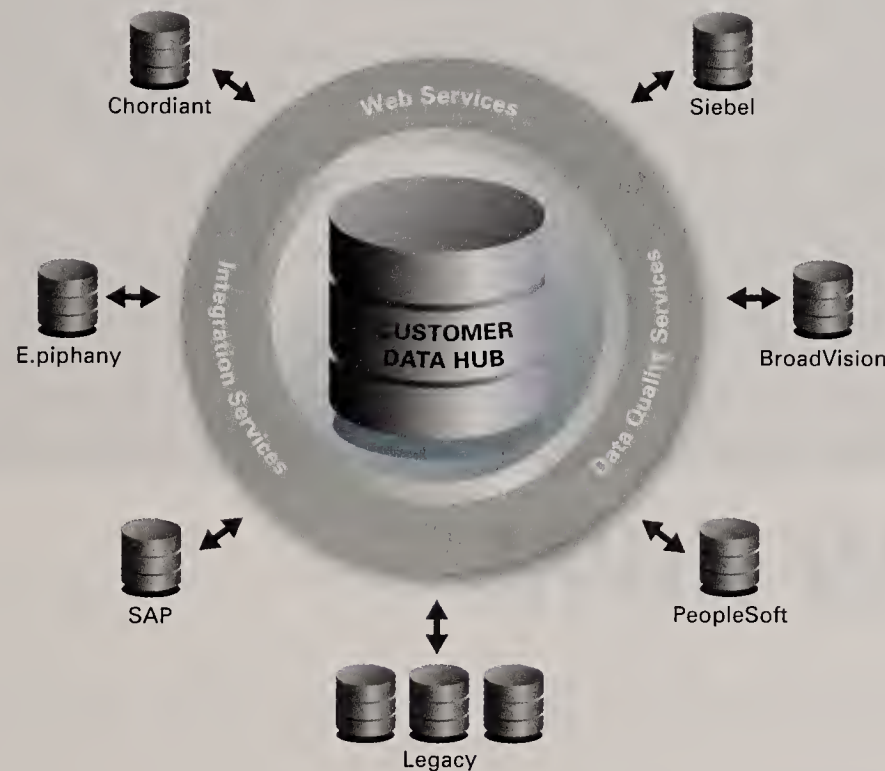
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It's Never Too Late for Time Management: You can't be a good manager until you learn to manage your own time.

By Susan H. Cramm

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INTERACTIVE >features

from October 1 to October 15

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Trying to decide if it's time to leave the small pond? Debating a move back to a nonprofit? Worried that you don't have the degrees you think you should? If "The State of the CIO 2004" issue has got you doing some serious thinking about your own state, consult with our online Career Counselors. A read through previously posted questions and answers might yield the solution you've been looking for. If not, post your own question (anonymously). Our three career experts are there to help. Go to www.cio.com/executive and click **Career Counselor**.



EXCLUSIVE METRICS

The Full Story

Our third annual "State of the CIO" survey contains valuable information you need to shape your job and direct your career. The complete "State of the CIO 2004" survey, geared to both operational and strategic IT, presents all the numbers, analyzed by industry. It will be available for purchase in November from www.theciostore.com.

ON THE MONEY

Talk the Talk

In this issue, Adrian Danescu, executive vice president and CIO at Merchant Bank, says there's no better way to get your COO to loosen the purse strings than to prove you're a penny-pincher (see **Cost-Cutting Versus Innovation: Reconcilable Differences**, Page 88). "You have to speak their language to have credibility," he says. If you need to brush up on speaking their language, check out our latest special issue: Money. It's available online (free registration required).

THE CIO + THE CEO

Ever the Twain Shall Meet

Think the CIO and the CEO are worlds apart? Our survey seems to indicate otherwise. Read the online exclusive, **Meeting of the Minds**. Find it in the online version of **CIO and CEO: How to Work with Your Boss** (Page 78) or at www.cio.com/printlinks.



Kirkpatrick & Lockhart CIO Steve Agnoli (left) with CEO Peter Kalis

WEB EXCLUSIVE

Introducing: Blogs of Our Own

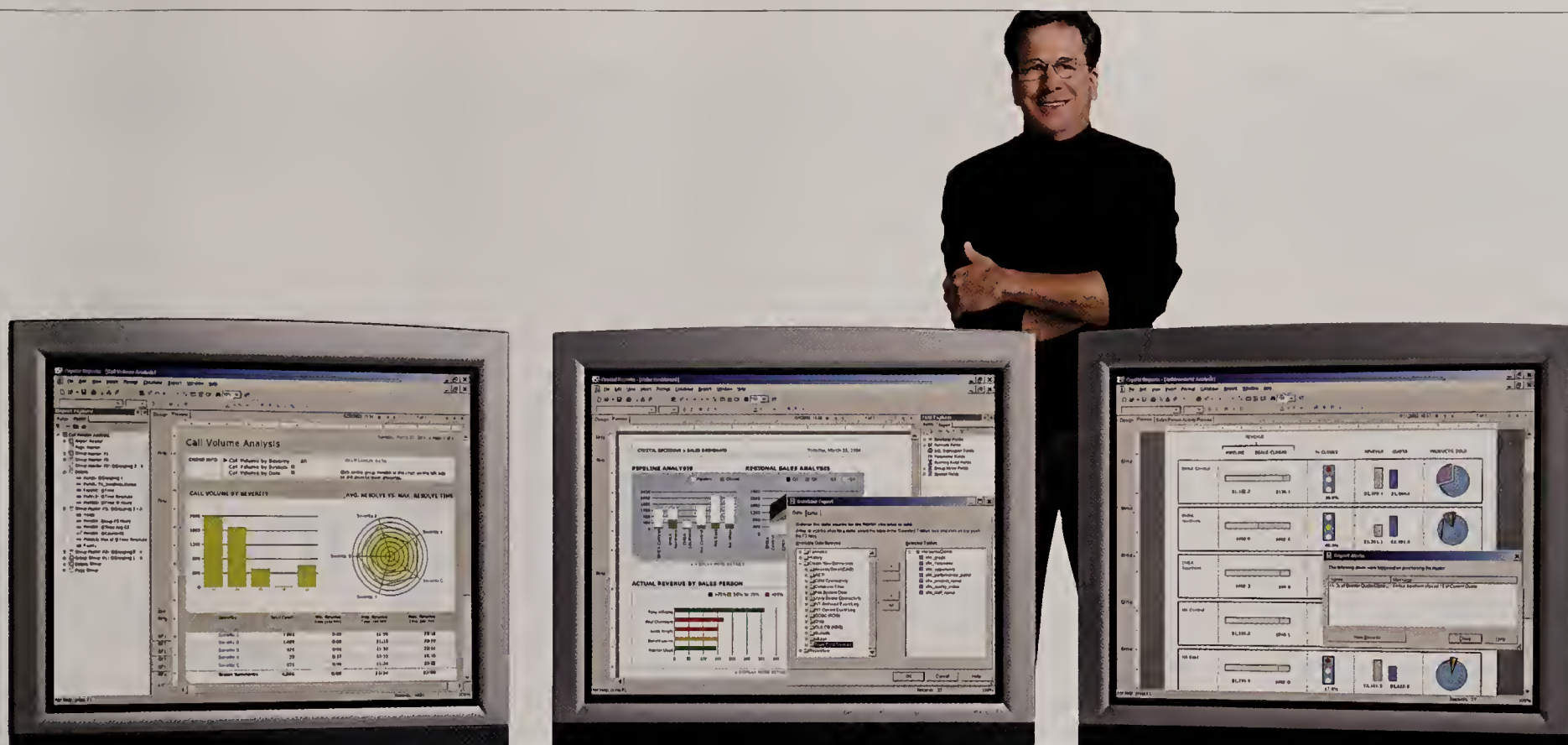
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From the Editor

lundberg@cio.com



Whether you're looking to run IT like a business (go to www.cio.com/ritlab) or want some fresh thinking in making IT more of a strategic partner in your company (www.cio.com/leadership), we're here to help you on the Web.



2004
GRAND
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WINNER

For the second year in a row, CIO magazine has won the prestigious Jesse H. Neal National Business Journalism Award for editorial excellence.

The Best and Worst of Times

RECENTLY, I had the pleasure of spending time with some 500 CIOs at our annual CIO 100 Symposium at the Broadmoor in Colorado Springs, Colo. It was a very upbeat event, and there was a greater sense of optimism than I've felt for a couple of years now. But there was also something new—an undercurrent of unease about the very nature of the CIO role. Things are in flux in the business world, and CIOs are trying to make sense of what is going on, and what it means for their futures.

At the same time, I've been immersed in the data from our third annual "State of the CIO" survey, based on responses from over 500 IT chiefs. If there is any clear, consistent message that comes through, both from the survey data and from the CIO 100 attendees, it's that for CIOs right now, these are the best of times and the worst of times.

In many organizations, the CIO is more important than ever before. IT is viewed as strategic, and expectations on the part of the business are high. These CIOs typically report to the CEO, command high salaries and are included in the executive committee. In these companies, CIOs have attained the status they've worked so hard for, and now they have to live up to it.

In other organizations, however, things have been heading south. There's a backlash against failed efforts, excess spending and unmet expectations. The disconnect between IT and the business is growing, and the response all too often is to put IT "in its place." In these companies, the CIO

typically reports to the CFO, is paid less and rarely sees the inside of the executive boardroom. IT's job is to be as low cost as possible, damn competitive advantage. Expectations couldn't be lower.

Whichever situation you're in, there's more pressure than ever to run IT like a business (see our special coverage on this topic at www.cio.com/ritlab). At the enlightened companies, doing so is the price of entry. At the backlash enterprises, where CIOs still exist in a Rodney Dangerfield kind of "I get no respect" mode, it's the only way to change the perception and help your company compete successfully in the information age.

These two extremes are creating a sense of unease in many CIOs about their responsibilities, their stature and their futures.

For the third year in a row, CIO's leadership and management editor, Edward Prewitt, worked closely with Research Editor Lorraine Cosgrove to gather the most comprehensive, relevant data about the CIO role, make sense of what is going on and present that to you in the most useful way. We've added a new feature this year—responses from 40 CEOs—to explore the connections and disconnects between what the boss wants and what you deliver.

We will continue to mine this data and cover these issues in depth in the year ahead. Our goal is to help *improve* the state of the CIO, so that by next year's survey, we'll be reporting that it is the best of times, period.

Albi Lundberg

PHOTO BY STEVEN VOTE

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Dave Chacon

Manager, Technical Services, *PING*

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InBox

Reader Feedback

THE PROBLEM WITH CERTIFICATION

As someone who has come up through the ranks primarily with experience as opposed to various certifications, I have a similar perspective to that of Michael Schrage on credentials alone as a measure of worthiness ("Hiding Behind Certification," June 15). I currently have the pleasure of working with a collection of individuals who are committed, personable and extremely effective at their jobs. But only one has an actual degree in computer science.

We joke that he and another teammate with a psychology degree are raising the intellectual property value of the IT department. Another contributor is a former Microsoft instructor and carries with him the full alphabet soup bowl of certifications. Having been on the other side (the technical training business), however, he is quite realistic about people's potential with or without their master's degrees.

I hope you have made a ripple in the undercurrent of traditional thinking. My preference is for calm, experienced professionals as opposed to cocky, certification-laden jerks.

Bob Hoagland • VP, IT • WD-40 Company • hoagland@wd40.com



I believe credentials, like buzzwords, are nasty byproducts of technology's weakening of our basic social and business skills. We've created our own little Frankenstein. I think the problem lies more with the fact that we're so intently busy trying to be technical or to make the next whazit-cool-doodad, that we've forgotten the most basic fundamental aspect of work: social interaction.

In our desire to get from point A to Z, we've forgotten steps B through Y. We've (ab)used technology to go from A to Z by shortening it to A to B.

How sad is that?

Alan Chan
Shadow Operations LLC
abc@shadowops.com

As a result of working with many offshore outsourcers and American clients, I have been continually struck by the blind dependence and reliance by American companies on certification, especially that of CMM. While I have tried to communicate this risk, gener-

ally IT executives are not open to hearing this news.

From my experience working with two Indian companies that had the appropriate Level 5 certification, I can say the approach to certification makes the difference. I believe the "right way" was an effort to more clearly define, communicate, execute and offer the certification to the general public: They treated certification as an ongoing process; there was ongoing education of the folks in India to stay current.

The "wrong way" was to go through hoops to get to SEI-CMM Level 5 so that they could market themselves: The process had not been sufficiently driven down in the organization in order to make sure everyone was tuned in to what certification meant ongoing.

The approach used tells me a lot about the offshore partner because, as we all know, after an organization has achieved certification, there is no way to reassess the current level of maturity for any CMM Level 5.

I fear the "bad" offshore outsourcing experience will generate more press than the "good" experiences.

Ron Gauthier
Great River Consulting
rongauthier@comcast.net

A RESOURCE ON GOVERNANCE

I read with interest and applaud "Recipe for Good Governance" in the June 15 issue. It appropriately points out the importance of IT governance (ITG) and the positive impact on return on assets. Many C-suite executives are not aware of these benefits, and this MIT survey should be used by CIOs to sell the cost benefit of ITG. Your readers should be aware of the extraordinary resources at IT Governance Institute, available at the website ITGI.org.

Michael P. Cangemi, *Editor in Chief*
IS Control Journal

PAY ATTENTION TO THE ELEPHANT IN THE ROOM

I am thrilled that CIOs are finally begin-

ning to question the logic of killing the chick before it is old enough to lay eggs ("My Lunch with the Elephant," June 15). If we continue to send our IT jobs offshore, we will, without a doubt, see a drastic reduction in new IT talent. The first question we need to consider is, Why was there a massive influx of students in our universities majoring in computer science and IT? Because that is where the jobs and money were.

What happens when those jobs are no longer available because they have been sent overseas? It is shortsighted to go for the quick return on the low wages available overseas; to do so will result in a mass shortage of homegrown talent both at the lower echelons and eventually at the executive level.

With this mentality, our IT managers, directors and CIOs will soon be located overseas along with our help-desk functions and support staffs.

Robert Andrews
randrews2003@yahoo.com

My son has grown up with computers, taught himself C++ in high school, participated in a regional programming con-

test and placed third, and has taken two Java courses in his first year in college. He loves computing and the thrill of accomplishing something when he completes and tests a program successfully.

It is shortsighted to go for the quick return on the low wages available overseas; to do so will result in a mass shortage of homegrown talent.

—Robert Andrews

However, his degree will not be in computer science or computer engineering. For him, the risk of offshoring in the IT industry just looms too large. He is pursuing a degree in chemical engineering, where he believes jobs will still exist that require the physical presence of a person at a job site here in the United States.

On the other hand, I am an optimist about where we can find IT leadership talent. In my organization, I am one of a handful of individuals with a degree in the computing field. Most of my colleagues have degrees in other fields, and many have moved into the IT field from other career areas. From this pool of tal-

ent, I believe we have sufficient resources from which to select IT leaders. Savvy, talented individuals don't have to spend a long time in a career field to become a leader in that field. They have to under-

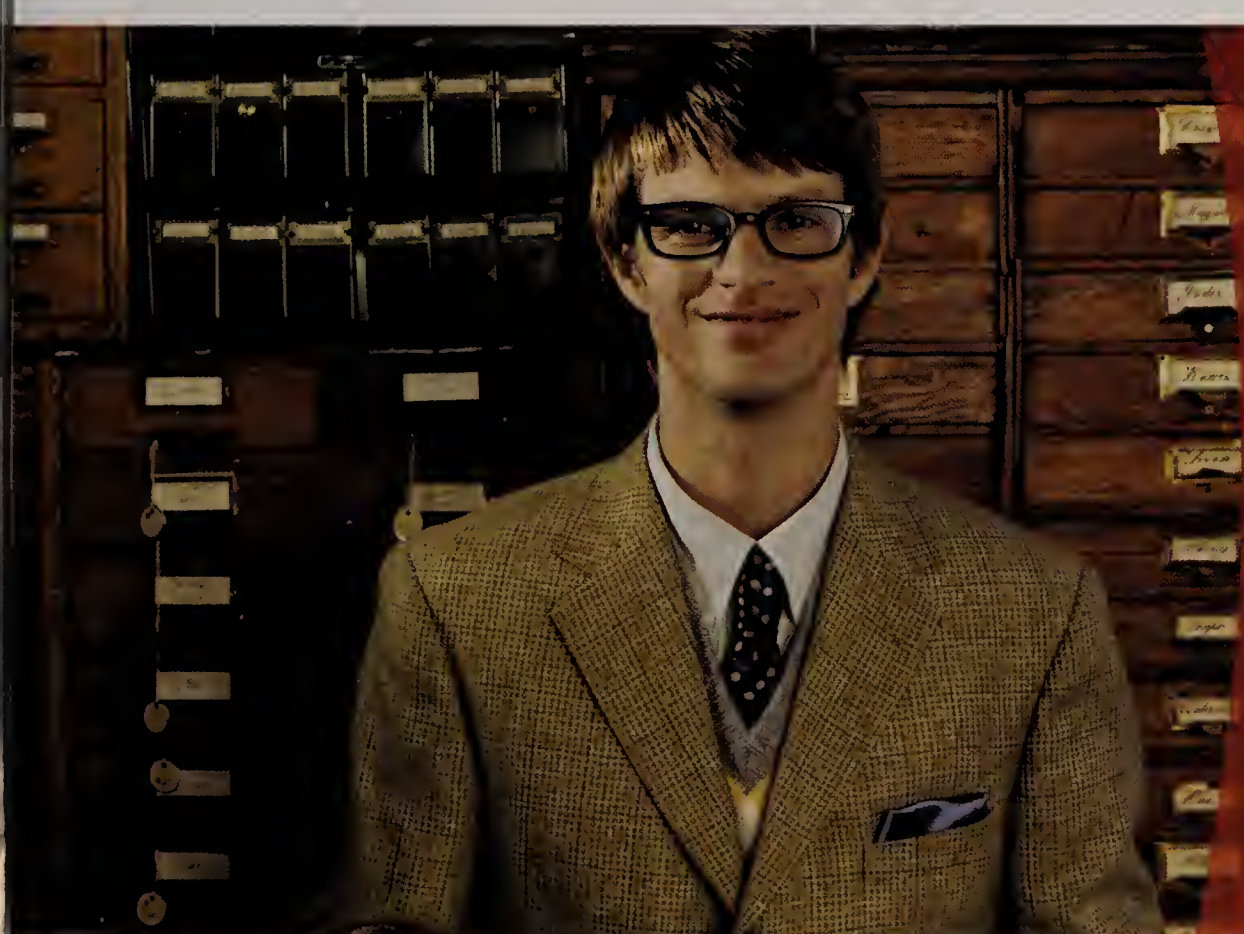
stand how the technology can be applied to make the business operate better and how to find the resources—whether in-house, outsourced or offshored—to achieve their goals.

Mike Kaplan
Westinghouse Savannah River Co.
michael.kaplan@srs.gov

ON REPORTING TO THE CFO

There is a good lesson in "It's a Jungle Out There" (July 1). If I were mentoring Brian Bertlin, this is what I would tell him:

A CIO can only be a chief if the position reports to the CEO or president. The CIO must be on par with the CFO and



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COO to do the job. If the company truly respects the role of IT in creating competitive advantage, this is how the CIO will be positioned (and is in most companies today). The moment you were pro-

technology, even in these times. Nervousness equates with distrust of all those involved in IT. Frankly, your description indicates that you failed miserably in selling the value of IT—and

dirty data (“Operation Clean Data,” July 1). As a data producer and user for over 25 years, I can attest to both the importance and difficulty of maintaining clean databases.

However, I did want to point out that, while the Census Bureau in general does a very good job producing clean databases, this is not always the case. The particular example I have in mind is the Consumer Expenditure Survey (CEX) that is produced by the Census for the Bureau of Labor Statistics (BLS).

Due to incomplete “editing,” it is virtually impossible to balance consumption, income, debt and savings data in the CEX—especially on an income-class basis. For example, according to the BLS, average annual income for the lowest quintile is \$8,316, but their average expenditures are more than 225 percent higher at \$19,061. (See Consumer Expenditures in 2002, www.bls.gov/cex/csxann02.pdf.)

While it is theoretically possible for this result to be caused by spending down assets or assuming additional debt, it is impossible to accurately interpret these findings using the CEX. This

The CIO is faced with the task of working with other executives who are frequently unfamiliar with and nervous about information technology.

—Paul Tiffany

moted to CIO was the appropriate time to put your foot down and demand the responsibility and authority to function properly. You never garnered the level of respect you needed to accomplish the goals of the job. Everything you’ve been faced with since then is a consequence of being set up for a fall from the beginning of assuming the top IT job.

Any executive has the ongoing task to “teach” other execs about their own role and to meld with the decision-making process. The CIO is faced with the extra task of working with other executives who are frequently unfamiliar with and nervous about information

the people who manage it—to the decision makers. Obviously, based on the numerous examples you provide, the executives and managers did not seek your input all along.

I’m sure I will get a lot of flack from CIOs who still report to CFOs, but my advice is to get cracking on what is needed to upgrade to a real CIO.

Paul Tiffany, CEO

HelpTeam PR

paultiffany@helpteam.net

THE IMPORTANCE OF BEING CLEAN

I enjoyed reading the article on clean and



Your data sleeps well at night.

On Monday, January 12, security thought leaders convened in Washington D.C. to discuss

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Richard Falkenrath, Homeland Security, The White House

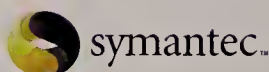
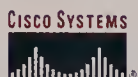
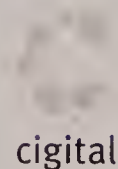


Admiral Thomas Collins, Commandant, U.S. Coast Guard



Arthur R. Miller, Harvard law professor/ TV commentator

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is because the edits discussed in the article are not applied to all the records. In fact, debt and asset data are missing for over 75 percent of all respondents that report income.

A colleague and I had an occasion to write about these and other problems with the CEX in response to a recent Federal Register notice. Despite evidence pointing to "dirty" data, we found that researchers inside and outside the government use the CEX for many important purposes. Hopefully, the upcoming review of the CEX by government officials will lead to quality improvements in this critical survey.

Ralph Rector, PhD
Project Manager and Research Fellow
Center for Data Analysis
The Heritage Foundation
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START SETTING THE RULES WITHIN I.T.

I take issue with Michael Schrage's July 15 column, "Meet Your New Boss," regarding the CIO-CFO relationship.

One of the Holy Grails should be that a CIO report to the CEO. Once IT is

relegated to reporting to the CFO, the department will invariably be assigned to reducing costs. That is the role of most CFOs; that is also the death sentence of any progressive CIO.

IT must have the freedom to be used in risk-taking ways to push the company forward. IT must be aligned with the company's strategy and not debilitated by the cost-cutting paranoia of most CFOs. In my opinion, IT must report directly to the CEO (or perhaps the COO) in order to stay independent from any parochial interest. It is the same argument for the CFO reporting directly to the CEO. It shouldn't be an option.

It's time to start setting some rules within companies on how to manage IT.

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What Do You Think?

Send your thoughts and feedback to letters@cio.com. Letters may be edited for length or clarity. For a link to the articles mentioned, go to www.cio.com/printlinks.

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HOW MANY ELECTRICIANS DOES IT TAKE TO STAFF HOME DEPOT?

In Meridith Levinson's Aug. 1 article, "Home Improvement," Home Depot CIO Bob DeRodes says, "If we hired every electrician in the United States, we wouldn't have enough people to staff our electrical departments."

While there is no denying that Home Depot is a successful retailer with an aggressive expansion plan, I'm afraid those numbers don't add up.

According to the U.S. Department of Labor's Bureau of Labor Statistics, electricians held about 659,000 jobs in 2002. Assuming that hasn't changed much, that leaves more than 400 electricians for each of Home Depot's 1,635 stores.

I certainly don't recall seeing 400 employees running around the electrical department the last time I shopped there.

Michael Harrigan
Ikea NA Services
Information Technology
michael.harrigan@na.ikea.com

Editor's Note: Bob DeRodes was referring to the number of certified electricians.

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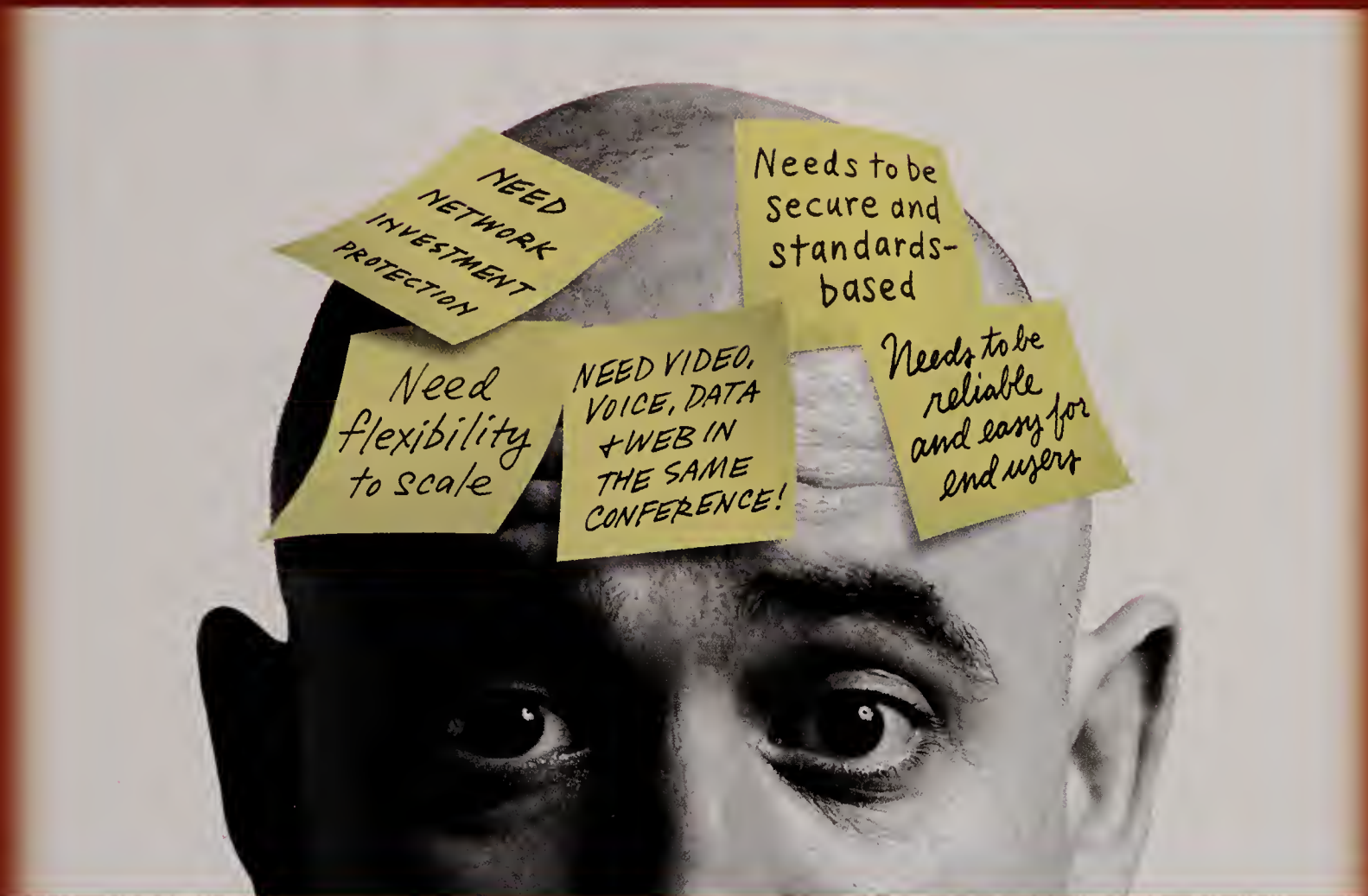
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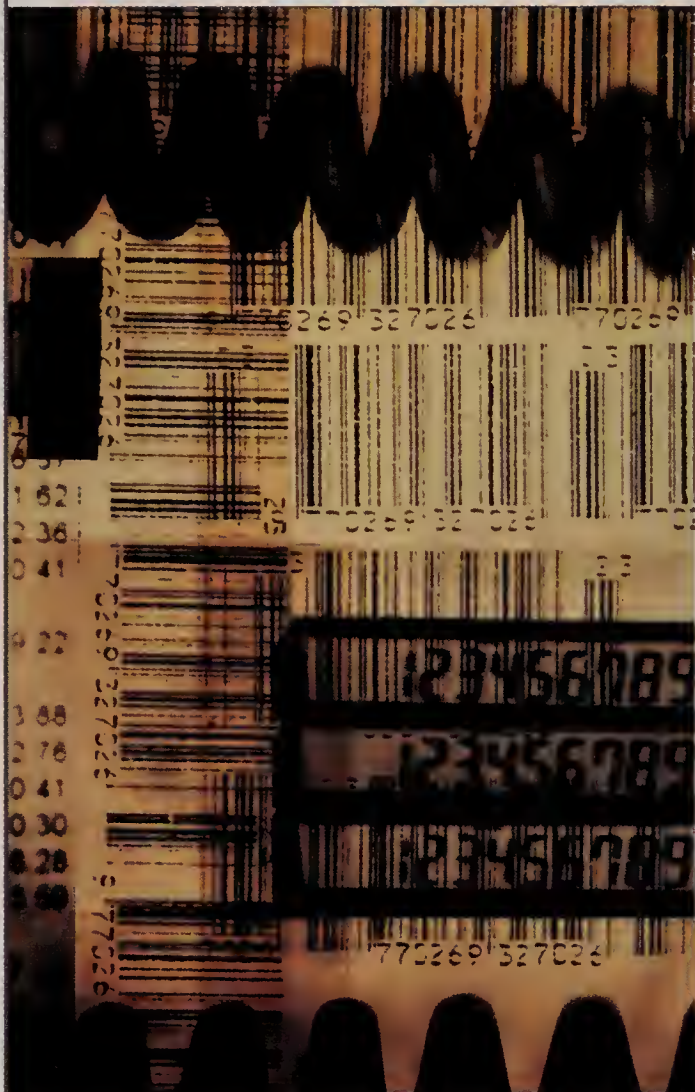
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Edited by Megan Santosus



RETAIL SYSTEMS

Y2K For Bar Codes

Retailers in North America now have just three months left to comply with the Jan. 1, 2005, date for ensuring that their point of sale (POS) systems can process 13-digit bar codes in addition to the 12-digit bar codes common in the United States and Canada. On that date, the Uniform Code Council (UCC), the standards body responsible for doling out bar codes, will begin giving out numerical prefixes to new companies outside the United States and Canada, creating 13-digit bar codes. The new requests, the UCC predicts, will create a proliferation of 13-digit bar codes.

The Jan. 1 time frame, known inside the retail industry as 2005 Sunrise, is intended to prevent and eventually put the kibosh on supply chain inefficiencies that result from having two bar code standards—the 12-digit universal product code (UPC) used in North America and the 13-digit European article number (EAN-13) prevalent in the rest of the world—according to Al Garton, the UCC's director of channel management for general merchandise. Because many North American retailers' systems haven't been built to hold 13 digits for a bar code number, they've had to require their non-North American manufacturers to relabel products with UPCs, which takes time and costs money—a cost that the retailer or manufacturer passes on to consumers.

Retailers that are compliant with 2005 Sunrise will have a competitive advantage over those that aren't because they'll receive products faster than retailers who require their suppliers to relabel products with 12-digit bar codes. And if that product happens to be the trend of the season, and you have it on your shelves before your competitor, customers will come to your store to get it.

Continued on Page 28

GADGETS

When You Know Wall Street Analysts Are Listening

Verizon CIO Shaygan Kheradpir is a veteran when it comes to talking to financial analysts and investors. His approach emphasizes a constant, two-way give and take with the financial community. (To read more about his experiences, see "Talking to Wall Street," in CIO's special Money Issue at www.cio.com/money.) Sometimes, though, the question of whether he connects with Wall Street analysts has a simple answer: It's about BlackBerrys.

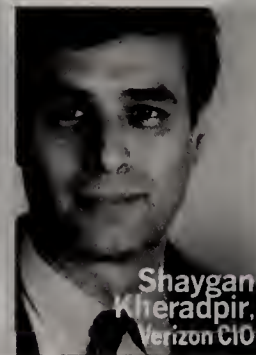
Analysts gathered to listen to a presentation reach for their BlackBerry pagers when they want to share a tidbit of information with their colleagues, Kheradpir says. He saw this happen last winter, when he presented information about Verizon's IT plans at an industry conference.

That time, the information was decent. But Wayne K. Homren, a research analyst with Parker/Hunter in Pittsburgh, says that analysts with handhelds drawn at an executive's

presentation don't automatically signify they're sending a "buy" recommendation back to the office.

"All it means is there's some news that will affect the stock and they want to get a note out to investors. They could be telling the folks back home, 'Sell this dog before it's too late.'"

—Meridith Levinson



Shaygan Kheradpir, Verizon CIO



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Bar Code Y2K

Continued from Page 26

"Every day you don't have that [item] on shelves, you're losing sales, margin and potentially customers," says David Hogan, senior vice president and CIO of the National Retail Federation (NRF), a retail trade association based in Washington, D.C. Hogan should know: From 1999 to 2003 he was the CIO of Duty Free Americas, which runs airport duty-free shops. "If you don't have that smooth flow of inventory," he says, "the customer might come back once, might come back twice, but not a third time if they can't find a particular product they're looking

for." To compensate for the supply chain lag time that results from having to relabel merchandise, retailers have to buy more inventory and carry more of it in stores and warehouses, which locks up cash as well, he adds.

If retailers don't change their systems, they also won't be able to scan 13-digit bar codes. When they try, the terminal or scanner may read, "Invalid SKU," or something to that effect, says Hogan. At cash registers and receiving docks, workers will have to manually key in bar codes and look up prices. For retailers, doing anything manually creates the potential for entering bad data, the bane of any information system.

While complying with 2005 Sunrise has its benefits in supply chain efficiencies, it also has its drawbacks. Retailers have to change every single application that holds or processes bar code information to accommodate 13 digits. They need to expand all electronic forms that contain fields for bar codes, such as purchase orders, advanced ship notices and invoices. They need to modify price lookup files and all the applications that access those files. "It's quite a significant number of changes," says George Lawrie, a senior analyst with Forrester Research, which is why the UCC unveiled 2005 Sunrise to retailers in May 1997.

Hogan says the NRF's members aren't sweating 2005 Sunrise. "For most, 2005 Sunrise is a nonissue because their systems were pretty much designed to be able to read both the EAN and the UPC." When the NRF polled its 2000 members two years ago, over 80 percent of them were compliant, says Hogan. But for those companies that aren't, the new 13-number bar code may prove to be unlucky.

—Meridith Levinson



David Hogan, CIO, National Retail Federation

I.T. SECURITY

A CIO's Guide to Safe Computing

As networks proliferate, connecting companies with customers and suppliers, IT security becomes an ever more complex web to manage. Lynne Ellyn, senior vice president and CIO of DTE Energy, also happens to be a member of Cutter Consortium's Business Technology Trends Council, a group of IT consultants and practitioners that keeps an eye on the latest IT developments and practices. Relying on her own perspective and concerns about managing IT at a large organization, Ellyn recently coauthored a report that outlines the best strategies for responsible

computing, a concept that takes into account the potential harm corporate computing can inflict on other organizations and individuals. Given the possibility of infecting suppliers with viruses or exposing customers to hackers, Ellyn believes that companies should strive for a holistic approach to achieving security. **The top 15 strategies for computing responsibly** are highlighted in the report and are practices IT departments of any size should implement if they haven't already done so.

—Megan Santosus

DTE Energy CIO Lynne Ellyn says eliminate modems, among other prescriptions for security.

- 1 Establish strong identity management for network access, ideally including passwords, smart cards and biometrics.
- 2 Strictly control password management and administration; avoid outsourcing this at all costs.
- 3 Aggressively manage security patching in a manner that allows desktop patching in two days or less.
- 4 Divide networks into smaller subnets with firewalls among them; carefully control traffic through firewalls.
- 5 Firewalls are necessary, but don't rely on them as a primary source of protection.
- 6 Manage outbound traffic with the same vigilance as inbound traffic.
- 7 Regularly conduct network vulnerability assessments with your security vendors.
- 8 Eliminate modems.
- 9 Secure all wireless networks.
- 10 Deploy intrusion protection devices and methods.
- 11 Deploy thin-client devices wherever possible because they are not vulnerable to viruses.
- 12 Carefully manage all interfaces between your company and others. Specify mutual security practices in contracts, and do not allow connections to companies with insufficient security practices.
- 13 Inspect the software development practices of vendors to determine their ability to control the insertion of back doors, and require disclosure of all known back doors.
- 14 Develop a comprehensive and enforceable computing policy and be sure employees understand it.
- 15 Review security scenarios regularly and create an emergency response plan.

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CIO CONFIDENCE

Things Are Looking Up

In August, Forrester Research surveyed 195 CIOs at North American companies to gauge their confidence in terms of their industries, companies and IT spending. While on the surface the numbers don't appear stellar, Forrester's third quarterly installment of its "CIO Confidence Poll" does represent improvement from previous quarterly polls. Among the findings:

- 15 percent said their current business climate is very strong; that's up from 5 percent who said the same in the second quarter.
- 39 percent are spending at a pace above their annual IT budgets, compared to 34 percent who were doing so in the second quarter.
- 75 percent of CIOs at larger companies (more than 5,000 employees) expected a brighter future; 63 percent expressed similar optimism in the second quarter.

WIRELESS TECHNOLOGY

Auto Parts on the Fly

Auto parts manufacturers often rely on wireless technology to track inventories. But in the assembly lines that use those auto parts, wireless technology is a rare find. "That's pretty much virgin territory," says Bruce Hudson, an analyst at Meta Group who used to manage procurement engineering for one of BMW's U.S. operations. Yet, that dearth of wireless technology is starting to change, he says. Case in point: AM General uses wireless technology on the assembly line to produce General Motors' Hummer H2 vehicles in Mishawaka, Ind. And Ford Motors is using wireless technology in dozens of its manufacturing sites worldwide.

accommodate the H2, AM General had to build a new plant in a smaller-than-usual space, thereby minimizing onsite storage for parts, and relying instead on just-in-time delivery.

But having parts offsite means there's a greater chance that replacement parts might arrive late. Avoiding that delay requires faster identification and notification of low inventories. And that's where wireless comes in. Normally, line workers place paper cards, called Kanbans, in baskets that are collected periodically. These cards are essentially bar codes that are scanned to trigger a request to the parts maker for a new delivery. But they can easily get lost

AM General's wireless system paid for itself in nine months.

What sets AM General apart is that wireless technology was essential to getting its Mishawaka plant built in the first place. Mishawaka is fairly far away from GM parts makers, and its plant sites are smaller than those required by most modern automotive plants, since Mishawaka's facilities were originally built in an era of smaller, urban factories. To

or delayed, notes Tim Kurtz, the plant's manufacturing systems coordinator. So AM General deployed a WhereNet 802.11b wireless LAN that includes pendant-shaped devices—each coded for a specific part—at each assembly station. Workers press a button on the appropriate pendant when parts are low, sending a wireless parts-replenishment request. This saved AM General the expense

of installing cable at each worker location and also makes it easier to adjust the assembly line for vehicle changes. For example, when AM General began manufacturing the new H2 sport utility truck this summer, the company was able to reprogram existing pendants and add 140 new pendants over a weekend, versus the usual several weeks. Plus the batteries last at least five years, so maintenance is minimal. "Wired systems are very expensive and hard to maintain, and costly to change," Kurtz says, adding that the system paid for itself in about nine months.

Other manufacturers aren't likely to deploy wireless systems on their own assembly lines. Thilo Koslowski, a lead automo-

tive analyst for Gartner, sees wireless as more appropriate for new factories that integrate wireless real-time assembly-line and inventory data with forecasting and flexible-manufacturing systems, providing more bang for the buck than a retrofit would. AM General's deployment appears to be just such a scenario. —Galen Gruman



GM's H2 vehicles (top) are assembled at AM General's plant (middle) in Mishawaka, Ind., using WhereNet's wireless LAN (bottom).

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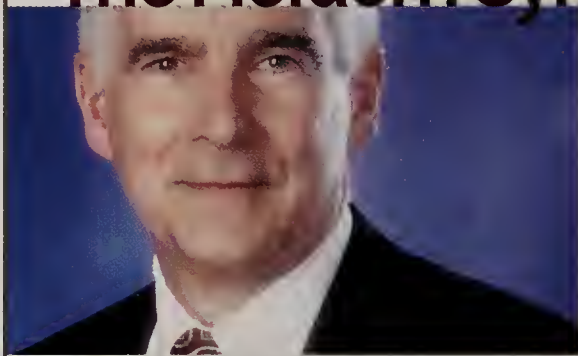


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Off the Shelf

Edited by Carol Zarrow

The Fiefdom Syndrome, by Robert J. Herbold



• Author Spotlight

After a corporate career at Procter & Gamble and Microsoft that spanned nearly 35 years, Robert J. Herbold knows a thing or two about how organizations—and the people in them—operate. Now a consultant, Herbold, who was the senior vice president of advertising and IS at P&G, as well as holding other positions there in marketing and brand management, has written a book (it takes its title from the word *fief*, meaning something over which one has rights or exercises control) about the turf wars he says are unavoidable in companies large and small. *The Fiefdom Syndrome*, he writes, is an accumulation of his experiences at P&G and Microsoft, which he joined in 1994 as COO. In his book, Herbold shows why battles over turf pose threats to corporate efficiencies and effectiveness, why CIOs are often the most affected by employees' tendencies to protect their turf, and what CIOs need to do to minimize the corrosive effects of fiefdoms—both within their own IT departments and throughout the organization as a whole. Herbold spoke recently with *CIO* magazine Senior Editor Megan Santosus.

CIO: You believe that creating fiefdoms is inherently human behavior. How then can organizations prevent them from taking hold?

Robert J. Herbold: Employees try to maintain their independence as a means of staying in control. They attempt to protect their own resources, whether those are personnel, systems or data centers. To mitigate the effects of fiefdoms, organizations need to establish and enforce universal standards, policies and practices.

How does the tendency to create fiefdoms affect the CIO?

The syndrome affects CIOs very directly. Because it gives them a feeling of power and relevance, people tend to hold on to information. Just look at what's currently going on in the U.S. intelligence community. As another example, some Microsoft

operating units abroad put in their own financial systems and data centers, and the resulting fragmentation created higher costs and inefficiencies.

What does a CIO need to do in order to prevent fiefdoms from taking over an organization?

CIOs need a thorough knowledge of how their companies operate as a whole and how information flows in them. That knowledge enables CIOs to spot the places where information is being hoarded. CIOs need to garner support from the top for implementing standards, and they must be able to communicate a unified vision of the organization. CIOs also need to avoid the atrophy of skills among their own IT employees. People with legacy skills often try to protect legacy systems as a way to protect their own jobs.

CIO Best-Seller List

- (5) **THE SEVEN-DAY WEEKEND**
By Ricardo Semler
Portfolio, 2004
- (4) **HOW TO CHANGE THE WORLD**
By David Bornstein
Oxford University Press, 2003
- (3) **THE CORPORATION**
By Joel Bakan
The Free Press, 2004
- (2) **WINNING THROUGH INNOVATION**
By Charles A. O'Reilly III and Michael L. Tushman
Harvard Business School Press, 2002
- (1) **THE SOUL OF CAPITALISM**
By William Greider
Simon & Schuster, 2003

SOURCE: Sept. 1, 2004, data, compiled by WordsWorth Books, Cambridge, Mass.

Fiefdoms: Cause and Effect

The fiefdom syndrome stems from the inclination of managers and employees to become fixated on their own activities, their own careers, their own territory or turf to the detriment of those around them.

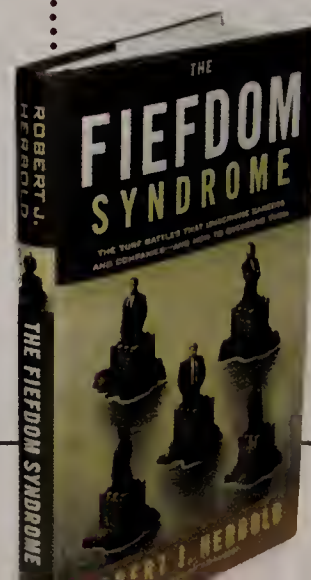
People who create fiefdoms can become dangerously insular, losing perspective on what is happening in the world outside their own control. They also lose their ability to act consistently on behalf of the greater good, or in a way that enhances the effectiveness of the larger organization. They often resist new situations and change.

People who create fiefdoms tend to hoard resources. They are determined to do things their own way, often duplicating or complicating what should be streamlined throughout the company, leading to runaway costs, increased bureaucracy and slower response times.

Organizations infected with fiefdoms tend to kill off or stifle individual creativity, leading to what I call the "freeze factor": when organizations become frozen or stuck in place, letting competitors pass them by.

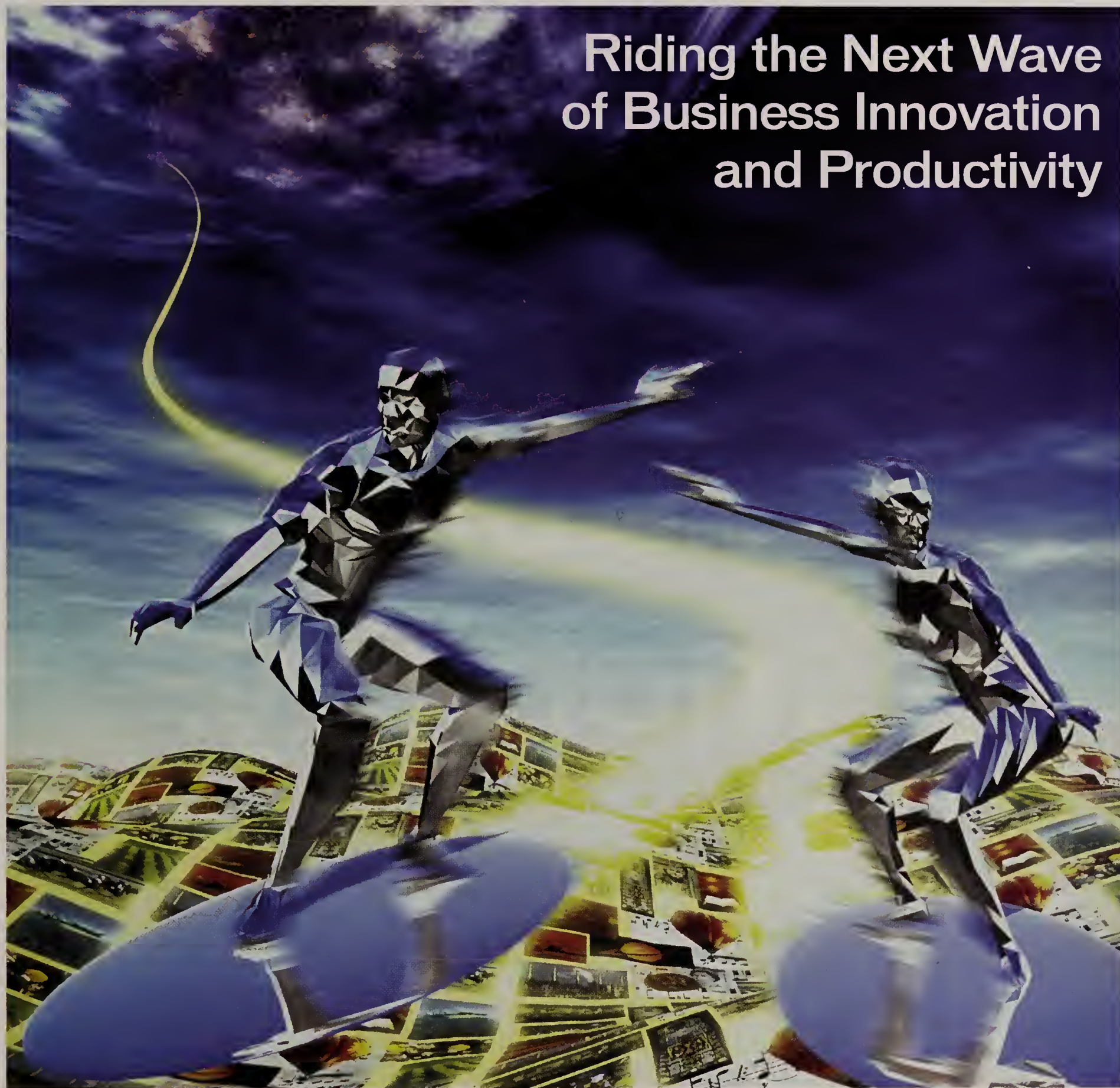
The Fiefdom Syndrome: The Turf Battles That Undermine Careers and Companies—And How to Overcome Them,

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Dynamic IT

Riding the Next Wave of Business Innovation and Productivity

Over the past two decades, \$10 trillion in information technology investment has unleashed a wave of business innovation – in everything from the way companies deal with customers and suppliers to the way they conduct meetings, count paper clips and send correspondence. For years there have been questions over the degree to which IT actually increases business productivity, but since the mid-1990s it's been clear that the contribution is substantial. There are now enough studies to fill a bookcase on the impact of IT on both enterprise and country-level productivity.

Figure 1 actually shows the correspondence between U.S. productivity growth and IT investment as measured by the U.S. government – with the growth in IT investment shifted by three years on the assumption that it takes some time for the investments to pay off.

As you can see, in almost every instance where IT investment has gone up (or down), productivity growth three years down the line has followed. The data does not prove a cause and effect, but the correspondence is clear. Increased

By John Gantz, Chief Research Officer, IDC, and Frank Gens, Senior Vice-President, IDC

IT spending and increased productivity go hand in hand.

Of course, this is a picture of the macrocosm. In the microcosm, we have plenty of other evidence that IT has generated improved corporate performance.

In spring 2004, IDC surveyed 500 CEOs and CIOs on the relationship between IT investment and sales performance. That study found

that companies with high sales performance are also likely to be leaders in IT. Additionally, these businesses tend to increase IT spending faster than the market average, while keeping an eagle eye on costs. Moreover, these sales and technology leaders concentrate their investment in areas that give them more insight into their customers.

Translated to the enterprise environment, this means that companies that increase investment in IT should see an increase in productivity and performance. But this is only

true if they invest in the right technology at the right time; manage their investment and implementation well; and manage their non-IT investment to maximize their IT investment.

And it goes without saying that companies that do increase productivity through IT do not do so in a vacuum. Their peers and competitors will be investing in IT as well. You can't just improve a business process and stop there. Innovation needs to be ongoing.

To sustain this innovation – continually improving business processes while simultaneously engineering out costs – IDC envisions a new generation of information technology that we call “dynamic IT.”

The concept is simple. Dynamic IT is about creating a high-performance IT capability that can support the rapid pace of business change. The dynamic IT framework untangles the patchwork of isolated, under-leveraged infrastructure, data and applications that today are common in many companies. It turns hard-wired point solutions into shared services.

The goal of dynamic IT is not to make an enterprise merely a little more responsive to changing business needs, but rather an order of magnitude more responsive. It's a lofty goal, to be sure, but as we will show, many of the technologies and business practices required to meet it are already here.

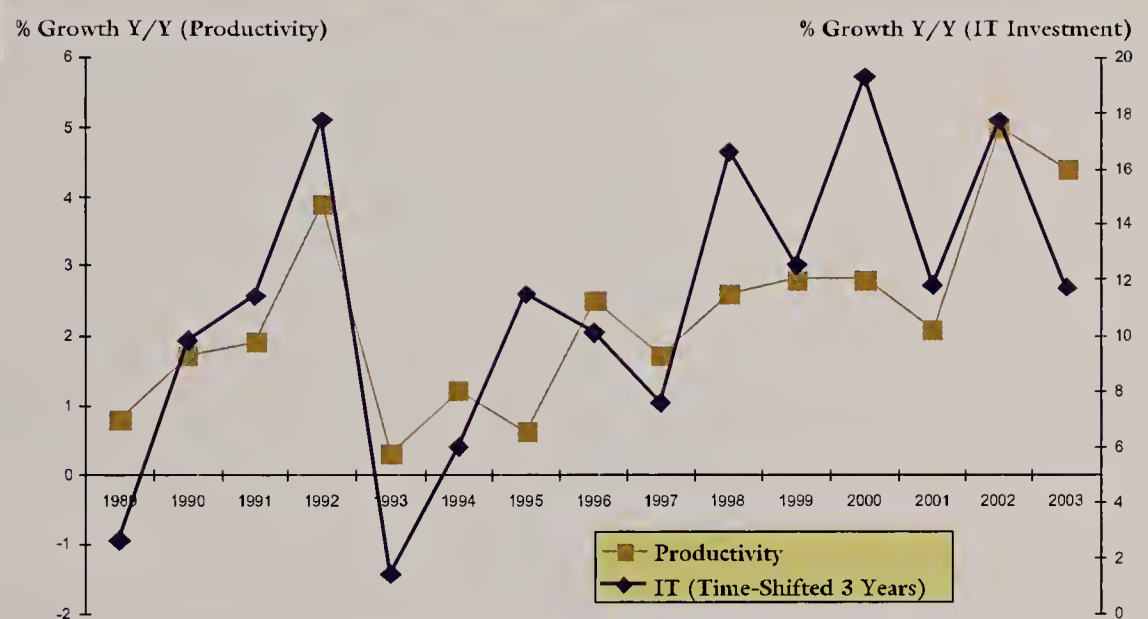
Why dynamic IT?

In a controversial article published in the May 2003 “Harvard Business Review,” Nicholas Carr argued that IT is now a commodity that no longer offers sustainable competitive advantage. Too many companies have access to the same packaged solutions for any IT-driven advantage to last for long. IT, Carr contends, is like electricity or steel – critical to a company but not a source of differentiation. Business and IT executives

their involvement with IT to increase over the next year (none thought it would decrease), and over 50% say their company should be more aggressive in using IT to attack business problems.

In another survey of large U.S. enterprises, top business and IT executives told IDC the biggest problems they face aren't technological in nature. Rather, the top challenges are related to cutting waste and inefficiency in the company;

Figure 1. Growth in U.S. productivity follows growth in IT investment



Source: IDC 2004

have been arguing since the article appeared with Carr's basic premise, but they agree that IT is critical to business (Figure 2).

One sign of the importance of IT is the amount of time line-of-business executives and CEOs spend on IT issues: 20%! This includes planning, evaluating, reviewing and testing. Over 25% of respondents expect

reorganizing to better face the market; and doing a better job of dealing with customers, partners and suppliers.

Can IT help address these business problems? How?

This is where dynamic IT comes in. Even if author Nicholas Carr is wrong, it's clear that the days of long-lasting market stability and

competitive advantage are over (if they ever existed at all). Management priorities are increasingly driven by the need to respond quickly to fast-moving market dynamics. A sharp rise in oil prices. The demise of a key supplier. An acquisition. A new law or court decision. A dock strike. Offshore competitors.

Indeed, the only way to gain sustainable competitive advantage is to continually establish and re-establish temporary competitive advantage.

ment to the shopping patterns found in individual stores. And why do you think Wal-Mart is pushing radio frequency identification (RFID) so heavily? It's all in the quest to keep store shelves stocked at all times.

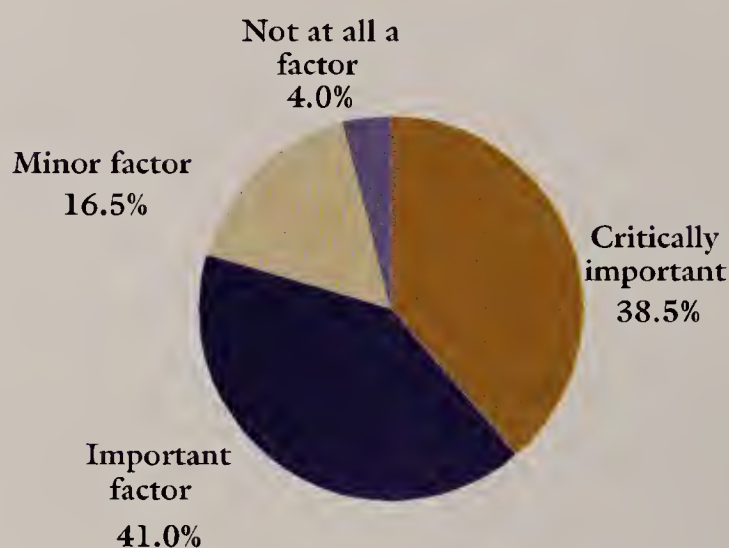
But using IT to support such real-time adjustments to changing business conditions is no easy task. While organizations face growing pressure to become more dynamic, IT has historically responded slowly to business change. In many industries, the

dancy; and improving the adaptability of business operations with a layered, service-oriented IT environment that allows changes to be made in individual parts of a business solution without impacting the rest of the solution.

Adding to the challenge of building dynamic IT is business executives' perception that IT costs are too high and IT asset utilization too low. As a result of this perception, much of the build-out of dynamic IT will have to be self-funded.

Figure 2. Over 79% of business executives say IT is critical or important

How much of a factor is IT operations performance to your business success?



Source: IDC's *LOB Executive Survey*, 2004

That's why companies as diverse as 3M and Best Buy are continually searching for IT-borne advantages. 3M has a "2X/3X initiative" intended to double the number of products it creates every year – a task that leans heavily on IT. Best Buy has a "customer-centric stores initiative" that seeks to tailor store replenish-

speed of business cycles outstrips the speed at which IT can react.

Two key goals of replacing the numerous hard-wired connections among dedicated IT resources with many more "virtual" connections among shared resources are improving operational efficiency through resource sharing and reduced redun-

The path to dynamic IT

IDC sees the transformation to dynamic IT unfolding on two parallel paths. First, there's business strategy and execution. To respond faster to changing business needs, dynamic IT needs to improve the organization's ability to develop and integrate applications, data and workflow, as well as to monitor business performance and speed operational adjustment to market changes.

The second path is IT operations management and automation. Dynamic IT needs to deliver on higher service-level performance and lower IT infrastructure costs. It must also link, monitor and manage all IT operational elements in the enterprise. The latter imperative includes automating labor-intensive tasks; developing end-to-end management capabilities; reducing hard-wired inflexibility through virtualization; and adopting flexible sourcing and

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The real payoff will come when the transformations down these two paths are intimately linked. The left side of Figure 3 illustrates how dynamic IT delivers value, but the right side shows where the real leverage comes from.

In most enterprises, the two domains (business strategy execution and IT operations and management) have historically been segregated. But for a company to become a truly dynamic enterprise, it's vital that these barriers be breached. Business executives need to understand how IT can be applied to improve their

employed in an orchestrated effort to help create this linkage.

Hinge technologies

What are the critical building blocks that organizations need to create a dynamic IT capability? IDC has identified 12 specific technologies, six for each major component.

We'll start with the "business strategy automation and execution" component.

Business monitoring and analytics: measuring business performance to trigger dynamic change. Think management dashboards, portals, real-time analytics.

ness. Business process-focused solutions using reusable application logic, business rules and workflow are the order of the day – not large, inflexible packaged applications.

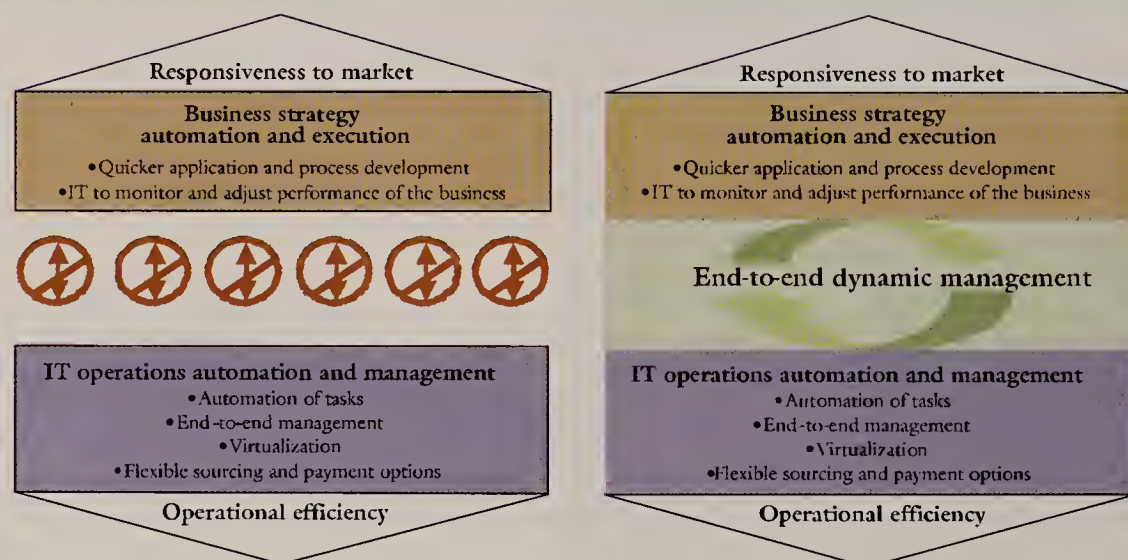
Information and data services: defining and accessing relevant information as needed.

Technologies that support integration, transformation and quality of information in a time-sensitive manner are critical. This means advances in modeling and meta-data management; better contextual analysis of data; the combination of structured and unstructured data; advanced search and discovery; and federated data management.

Integration, event and deployment services: connecting, processing and managing end-to-end messages, events, information and application logic. This technology supports concurrent, asynchronous and synchronous message streams with contextual and state awareness. Discrete technologies include agents and brokers; application servers for service provisioning; and integration tools that, to take one example, can help companies gain a single view of their customers.

Collaboration and communication services: supporting human interaction in the business process. These technologies coordinate resources for interaction, especially those enabling workforce productivity and linking the organization to the outside world. To date, many of

Figure 3. Dynamic IT delivers value in both the business realm and the IT operational realm. The real payoff comes when the two are interconnected.



operations. IT personnel need to have a clear view of the entire IT value chain and how it supports business processes.

These may seem like pie-in-the-sky goals, but there is no doubt that existing technologies can be

Think store reporting systems that automatically trigger supplier shipments of hot selling items.

Business process management and applications automation: quickly configuring applications and workflow to support the busi-

these technologies have led to applications that remain isolated from the automated functions of a business. That must change.

Access and interface services: providing navigation and interactive experience inside and outside the enterprise. Given the growing complexity and tremendous volume of systems and sources in today's computing environments, navigating and accessing them in the context of role and function has become increasingly difficult. Consolidating sign-on and standardizing procedures is just a first step in addressing the user experience.

Now we'll note technologies supporting the "IT operations management and automation" component.

Service-level management and automation: triggering deployment of IT resources. These include the emerging automation or orchestration engines that trigger the provisioning of enterprise systems from virtual resource pools. Automated provisioning is what finally achieves "on-demand" or "utility" IT. This requires the setting of service level agreements and setting priorities for different workloads and services.

Metering, measurement and chargeback: charging for IT use by business group or activity. This area is focused on leveraging metering metrics for usage measurement and billing to departments and customers that use a shared resource



pool governed by service-level management and automation.

Security: protecting the entire IT environment. Security runs through all layers of dynamic IT and ensures privacy between customers and departments in a shared-resource environment. Its many facets include authorization, access, protection and managing identity throughout and beyond the enterprise.

Infrastructure virtualization: creating efficient virtual resource pools. The partitioning of servers is the most commonly used aspect of virtualization today; the practice must be extended and refined so that all enterprise systems can be allocated and reallocated to different workloads depending on service-level agreements and priorities.

Infrastructure provisioning: enabling rapid and consistent deployment of IT resources with improved change control. Here are the tools that provision a platform with operating systems, patches, applications and services that allow it to be a resource for a given workload. Provisioning tools may be automated (and therefore controlled) by the service level management and

automation engine; alternatively, they may be more manual, in which case they may help IT managers seeking to deploy patches or upgrades to groups of servers remotely.

Platform management and monitoring: enabling system monitoring, inventory, alerting, group management and capacity management. These technologies contribute the individual node and group systems management that lets IT administrators manage the hardware and software elements of storage, server and network equipment.

Making dynamic IT happen

Merely knowing what technologies lead toward dynamic IT doesn't ensure their implementation will go smoothly. But a number of design principles apply.

For one thing, point products or solutions with little connection to other parts of the IT value chain are clearly of limited value. Applications that lack business rules or service level requirements as key design inputs won't make the grade. In turn, service-oriented architectures incorporate layers of abstraction that allow for the rapid changing of IT system behavior – which, in turn, allows for rapid re-architecting applications and solutions.

Dynamic IT is also heavy on modular design, the use of standards when possible and multiple levels of virtualization. Dynamic IT simulta-

neously increases the number of logical connections among IT resources and cuts (or masks) as many physical interdependencies as possible. While virtualization has been available within IT systems for decades, its application is spreading to a much broader range of hardware and software systems.

Finally, dynamic IT comes with a flexible internal/external sourcing model and a flexible operating cost model. One major benefit of dynamic IT is the flexibility it brings to internally source or outsource various components as business conditions require. A flexible cost model that supports usage-based pricing or on-demand access to resources is also a key ingredient.

Measuring the value

Naturally, enterprises must rigorously track both the cost and contribution of dynamic IT. This can be difficult to envision. How is IT supposed to improve a business process? Faster response time? Around-the-clock coverage? Fewer errors? How will improvement be measured? What did the IT behind that improvement cost?

Because IT investments may support multiple business processes, and because a business process improvement may come from multiple IT investments, matching costs to improvement is a challenge.

We find that getting the most out of dynamic IT requires two linked



measurements:

- IT costs supporting a business function.
- Improvement in that business function.

The linkage must come from detailed monitoring on both sides. This is where the service level architecture and metering and monitoring technologies in dynamic IT come in -- dynamic IT helps monitor and report on itself to enable optimal use of IT resources. The same goes for business monitoring and business analytics.

IDC, in its IT Value Metrics and Measurement research practice, closely studies the way leading U.S. and global companies justify, monitor and optimize their IT investments (see sidebar) -- but let's face it, there are no silver bullets. The most important requirement is that there

be some ongoing monitoring of improvement and costs.

The roadmap

Building a dynamic IT capability is a large and complex undertaking. Where should CIOs start the journey? The answer will vary by organization, but in a recent IDC survey of U.S. business executives it was clear that the dynamic IT areas most directly connected to enabling business process improvement (flexible applications; integrated data and information; and improved communication and collaboration) are the most urgent.

On the other hand, dynamic infrastructure investments, largely invisible to business executives, are considered lower priority. This is a big challenge (and opportunity) for CIOs, who must connect the dots between infrastructure investments and business performance.

For CIOs trying to develop and prioritize steps toward a dynamic IT environment, here are some key findings from our research:

- Business executives' priorities will focus on business processes. This seems self-evident, but IT execs must remember that their business counterparts will always see IT through the lens of their own operations.
- There are mixed messages about process visibility. In surveys, real-time monitoring of business ranks low. This may be an anomaly, but it may reflect a growing realiza-

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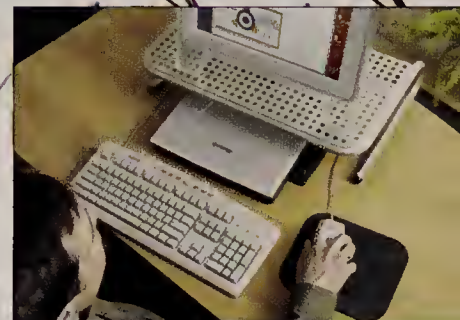
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Accounting for Dynamic IT Value

A dynamic IT organization is always measuring and monitoring itself. To help businesses do so, IDC's IT Value Metric and Measurement research practice recommends the following:

- Track IT consumption costs to collect data for controlling IT costs and showing IT usage volume/patterns. Businesses should set parameters through joint efforts by business functions (such as finance, engineering and IT); model IT service costs on key metrics that are highly correlated cost drivers; and report cost data in a way that is meaningful to constituents.
- Track IT-enabled business process performance to collect data for directing IT dollars to areas of greatest impact and for maximizing process performance. Companies should focus on what must happen in order for processes to be considered successful (e.g., expected benefits, impacts, outcomes); identify key per-

formance indicators with quantifiable markers of how IT is expected to impact process performance; and ensure the tracking process has an internal logic that takes into account the potential impacts of one part of the process on others.

- Use the data from both initiatives to more closely manage enterprise activities to strategic objectives. For example, enterprises should undertake interventions to improve process performance through adjustments to IT capabilities and services or through process adjustments that improve the way people work with technology and conduct the process itself; focus on net benefits to the organization by comparing cost and usage data to related business process performance data; and plan for future IT-enabled directions more confidently on the basis of data that exposes costs and usage patterns, process outcomes, dependencies and non-IT factors that affect performance.

tion that visibility into processes – analytics and business intelligence – can be useless without the wherewithal to act on what's learned.

- Infrastructure improvements are less urgent to line-of-business executives. IT investments and capabilities are less directly visible to business executives, which creates an internal marketing challenge for CIOs.

- Connecting the dots is critical. CIOs must be able to articulate and measure the business impact and value of planned investments.

- Improving IT capabilities trumps lowering IT costs. In our research, three of the four top-rated priorities involved improving IT capabilities (functionality, speed, flexibility); only one involved lowering costs. Business executives are not so skeptical of IT value that they simply want to squeeze down costs. This is valuable equity that IT must conserve through well-managed projects and high-quality service.

With dynamic IT applied to the process of measuring its own impact, companies can get a jump on creating a succession of temporary advantages that, over the long run, equal sustainable competitive advantage.*

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As the senior vice president and CIO of Select Comfort, a midsize company with a lean IS staff, Mike Thyken wants to migrate to Linux-based applications because he believes it will reduce hardware and software maintenance costs. But since he still must manage core business projects and commodity systems with a small staff, researching and then developing the new competencies that Linux requires seemed out of reach in terms of both time and resources.

Thyken's solution: He joined the Avalanche Corporate Technology Collaborative, a group of companies that hope to reduce software costs by sharing intellectual property, including the application code of customized programs. For Thyken, membership will translate into deliverables to jump-start his migration to Linux by leveraging the Linux experience of other IS organizations. In the process, Thyken aims to reduce the burden on his IT department.

The idea behind Avalanche is simple. Companies join for \$30,000 a year, a fee that allows them to contribute software to the group, collaborate on software development, and use the contributions of fellow members. Avalanche provides product

management, including quality control and architectural review of software before it is accepted for distribution.

Avalanche is certainly hitting a nerve in the IT community. Among its founders are the CIO of Jostens and the former vice president of development for customer facing systems at Best Buy. New clients are knocking on Avalanche's door almost daily since opening this past March. CEO Jay Hansen says more than 400 companies have thus far contacted Avalanche. Seven companies have signed on as members.

Many of the IP components within Avalanche are infrastructure-related, including tools for application integration and release management. One member, says Hansen, implemented an integration tool, spending \$145,000 less than it would have on a commercial product and consulting services.

"What it all boils down to," says Thyken, "is collaboration among companies should be a faster approach to deliver cheaper solutions for our noncore applications." If all works out, Thyken will continue to support Select Comfort's core business yet still make the jump to Linux using much less staff time and money than if he had to start from square one.

Vendors and consultants may be the only folks who don't appreciate all the good-natured sharing.

—Julie Hanson

EXECUTIVE EDUCATION

Why You Should Go Back to School

Mike Grimm, CIO of the Seton Co., had always viewed technology as a way to help control manufacturing costs at the auto leather upholstery company where he's worked since 1998. It wasn't until he went back to school that that view changed.

In March 2003, Grimm enrolled in Finance and Accounting for the Nonfinancial Manager at the Wharton School of the University of Pennsylvania. For an eye-opening five and a half days, he pored over financial statements and learned to assess financial risks. "I was more of an operations guy before and couldn't look at every dollar I spent," says Grimm.

Grimm believes that the class helped him understand how to better align technology with the company's business goals.

Most CIOs—82 percent, according to a 2003 CIO survey—identify IT jobs as influencing their career rise. But once they get to the top IT spot, finance and accounting know-how is invaluable, CIOs say.

All CIOs should understand capital budgeting, the concept of present value (the value in today's dollars of a payment to be made in the

future, accounting for a specific interest rate) and taxation, says Hal Varian, a professor at the School of Information Management and Systems and the Haas School of Business at University of California, Berkeley. If they don't, they should take one of the ubiquitous finance courses offered at business schools, or online courses by various business organizations. (For more about financial matters and executive education courses, see CIO's special Money Issue report at www.cio.com/money.)

The basics are most important for Susan Lang, CIO of Pierce Transit, a Washington state public transportation agency, who recently took a finance for nonfinancial execs course at the University of Washington. She says the classes helped her better manage a recent project: the purchase of new Mitchell Humphrey finance software.

The course also helped her scrutinize a prospective vendor's finances more closely during the RFP process. "I know what I'm looking at now," she says. For example, if she has questions about the vendor's financial health, she takes them to the company's CFO.



During the Wharton course, which Lang also attended, execs are brought into fictitious corporate boardroom scenarios, says Peter Knutson, associate professor emeritus of accounting at Wharton. The idea is to get the CIO to understand, for example, what happens when the CEO addresses his board of directors, who are anxious that the company won't meet Wall Street's expectations. Professors also use case studies to drive home how CIOs can make better financial decisions by evaluating investment alternatives.

As a side benefit, these classes help some CIOs make better personal investments. "I've lost less money," Lang says. "It's nice."

—Kim Girard

Mike Thyken,
CIO, Select Comfort



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On the Move

By Meridith Levinson

Following a Tough Act at Prudential Financial

Last January, Bill Friel retired as CIO of Prudential Financial after a 16-year tenure in various positions with the company. Barbara Koster, then the CIO of Prudential's individual life insurance business, was appointed to succeed him, becoming senior vice president and CIO of the company.

For much of the time Friel led the IT department, Prudential was undergoing dramatic changes. It went public on Friel's watch, and he established the architecture and application set that would help transform Prudential from a mutual insurance company into a diversified financial services company. Because Friel was so well-respected inside and outside his company (he was a member of several organizations including The Research Board, an international think tank for CIOs), Koster, 50, has a tough act to follow.

Gerard P. McNamara, a senior partner at recruiting firm Heidrick & Struggles Interna-

tional, says life can be difficult for a CIO—or any leader—taking over for someone who was well-liked and well-respected. "People are constantly comparing the new person with the old person," says McNamara.

Indeed, the biggest challenge Koster says she's met in her new role so far has been helping Prudential's IT staff adjust to the differences between her leadership and management style and Friel's. She has two primary tactics for dealing with this challenge:

- She's direct. Koster has been up front with her staff about the way she manages. She's told her staff that the big difference between herself and Friel—at least while she comes up to speed in her new role—is that she asks a lot of questions. Because she's new to the position, she has to ask basic questions about Prudential's mainframes or help desk processes that Friel would have known off the bat. She's told her staff that she asks so many



: Barbara Koster's Résumé :

January 2004–Present: Senior VP and CIO, Prudential Financial

2000–December 2003: CIO, Individual Life Insurance Systems, Prudential Financial

1997–2000: VP, Individual Financial Services, Prudential Financial

1995–1997: VP, Policy Administration and Management Information Systems, Prudential Financial

1988–1995: President, Chase Access Services, Chase Manhattan Bank

1985–1988: VP, Information Services, Chase Manhattan Bank

1980–1985: VP, Financial Systems, Chase Manhattan Bank

Education:

» Bachelor of Science degree in Business Administration from St. Francis College, Brooklyn, N.Y.

questions because she's trying to learn, not because she's trying to get them to rethink their strategies and decisions—a concern she's trying to head off

by being forthright.

■ She's not reinventing the wheel. Knowing that too much change is never a good thing, especially when the company is performing well overall, Koster is not doing away with the fundamental organizational and reporting structures her predecessor put in place and with which the IT staff is familiar. Having worked closely with Friel on projects such as LaunchPad, a sales-force automation initiative, when she was a divisional CIO, Koster learned from him the importance of close business-IT alignment. For that reason, the technical teams that support specific businesses inside Prudential will continue to have solid-line reporting relationships with those businesses and dotted-line relationships with IT. And she'll continue to organize the IT department around Prudential's requirements for growth and the products the company wants to sell rather than around specific technology areas or functions.

"Our relationship is always with the business first," says Koster. And that won't change.

—Meridith Levinson

NEWS OF OTHER MOVES

Prudential is not the only financial services company with a new CIO. Wachovia named **Susan Certoma** CIO of its corporate and investment bank. She comes from Goldman Sachs where she most recently led the global sales technology organization as its vice president.

Goldman Sachs lost another IT executive, **David Webb**, who was in charge of supporting the investment and merchant banking divisions as a vice president. Webb joined **Silicon Valley Bancshares** as its CIO.

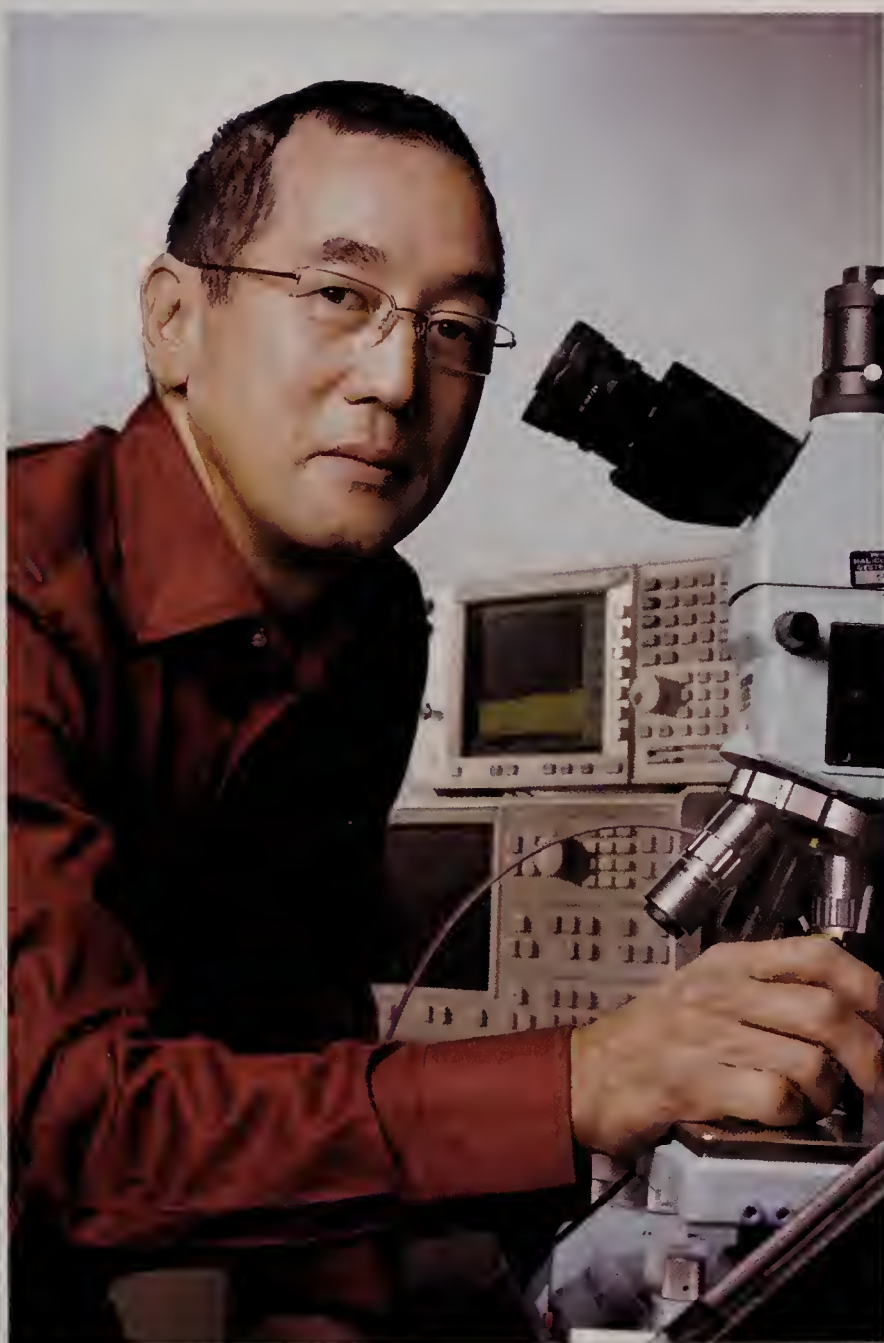
The American Stock Exchange appointed **Antoine Shagoury** its executive vice president and CIO. He will be a member of the executive management team and

assist with strategic planning. In other securities industry news, **John Von Stein** joined **Options Clearing** as its executive vice president and CIO. Von Stein most recently worked for commodities conglomerate Cargill as vice president of information technology for its Latin America region.



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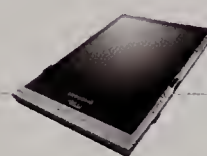
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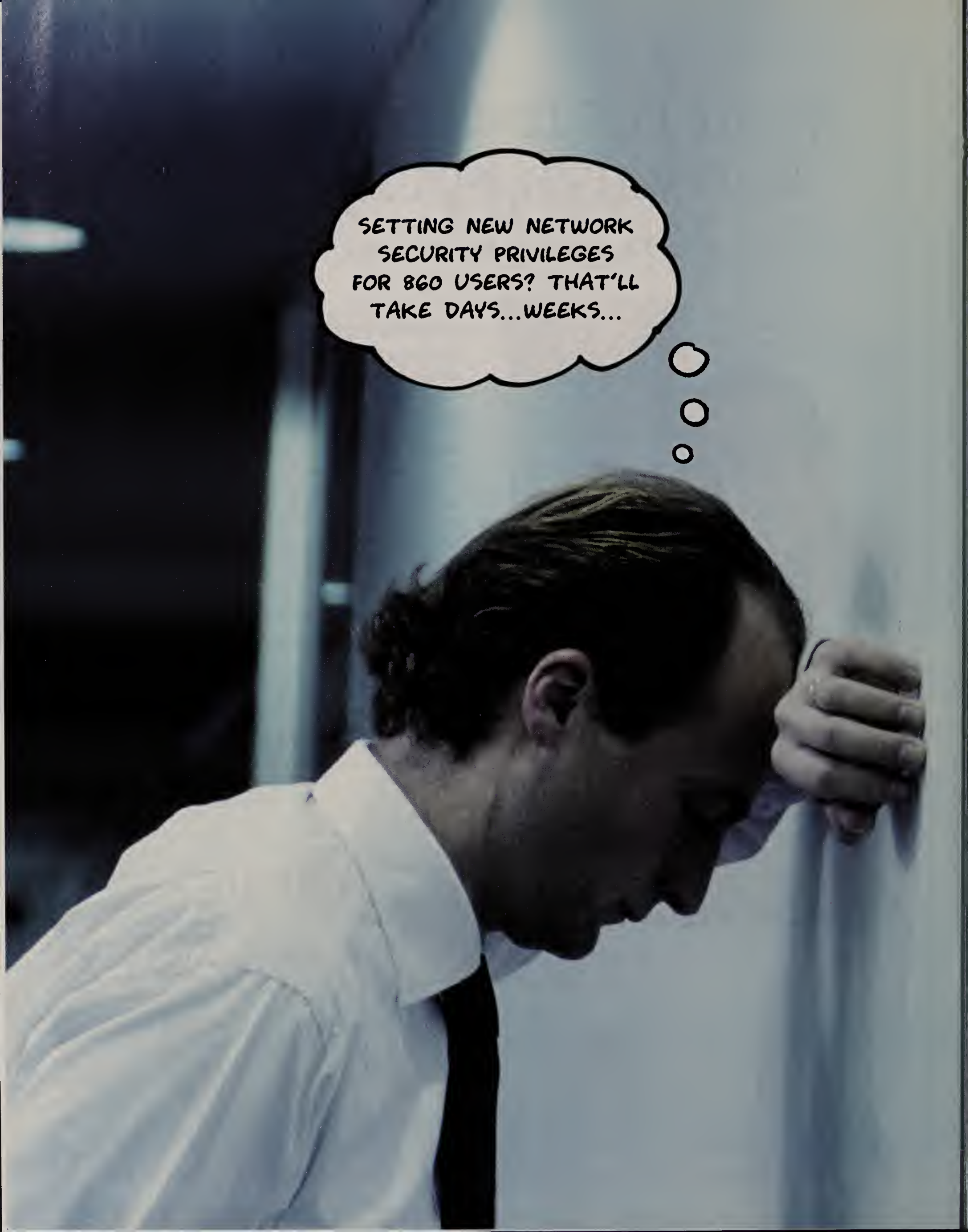
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Keynote | Tom Davenport

New Ideas from Leading Lights

Decision Evolution

Automated systems are helping businesses make decisions more productively and consistently. But they're also making a lot of entry-level jobs obsolete. Executives had better be prepared to manage the transition.

HAVE YOU EVER KNOWN a family in which the child went well beyond the parents? One in which the parents didn't seem to have a lot on the ball, but they bequeathed just enough capabilities to their child for him or her to take off? That's just what happened in the world of automated decision making. The parents—artificial intelligence (AI) and decision support systems (DSS)—were ultimately disappointing despite lots of favorable hype. AI and expert systems required those pesky knowledge engineers to create them, and they were very difficult to maintain. Decision support systems also never really flourished, despite being the darling of academics for decades, perhaps because they required too much statistical expertise and too much human analysis for these lean times.

But their offspring, a technology called automated decision systems, is taking off, and it embodies the best attributes of each parent. Automated decision systems are rules-based like expert systems. And like DSS, they often involve statistical or algorithmic analysis of data. They typically make decisions in real-time after weighing all the data and rules for a particular



customer or case. Sometimes they also carry genes from another ancestor, business process management or workflow, leading some observers to classify them as “smart BPM” systems.

Their most salient characteristic is that they actually make a decision: what price to charge a particular customer, whether to grant a loan or an insurance policy, which delivery truck should be rerouted, what drug to prescribe to a diabetic patient. In many cases their decisions are made without any human intervention at all; in others—sometimes for legal or ethical reasons—they work alongside a human expert such as a doctor. For the most part, these systems are being used for decisions that must be made frequently and very rapidly using information available online. The decision domains are relatively highly structured, with well-understood decision factors.

In short, this is just what knowledge workers don't need—another reason why they're no longer necessary. If automated

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decision applications grow at the rate I believe they will, there will be far fewer entry-level jobs requiring judgment and computation. It's even easier and cheaper to automate these jobs than it is to send them offshore, and more of an issue from a job-loss standpoint. Economists say that productivity gains are largely responsible for 2.7 million U.S. jobs lost since 2001, as opposed to the roughly 300,000 lost through offshoring over the past three years. I've even heard of one company that is

Economists say that productivity gains are largely responsible for 2.7 million U.S. jobs lost since 2001, as opposed to the roughly 300,000 lost through offshoring over the past three years.

using Indian programmers and statisticians to develop its automated decision systems—a double whammy for the American knowledge worker.

These systems are being used across a variety of industries and decision types, as my former Accenture colleague Jeanne Harris and I found after a year of research. They are more real-time, more complex and much more pervasive than the original versions: yield management systems in airlines that made seat pricing decisions in the early '80s. In airlines, for example, the technology has now been extended to a variety of operations issues, including flight scheduling and crew and airport staff scheduling. Yield management is also being combined with loyalty management applications to determine real-time pricing for hotel rooms. Casino operator Harrah's Entertainment, for example, makes several million dollars a month in incremental revenue by optimizing room rates for its hotels and offering different rates to different levels of members in its loyalty programs.

Although automated decision systems are common in travel and transportation, financial services is using this technology to the greatest degree. In banking, real-time mortgages and secured lending decisions are becoming common. For example, LendingTree.com uses automated decision making for two purposes: first, to decide which of its participating banks are most likely to issue a mortgage to a customer. Second, to actually offer four mortgage deals within a few minutes to a customer, using the banks' technology or its own.

DeepGreen Bank was designed from the ground up around automated decision technology for home equity loans. Customers can complete an application (including reported income) within five minutes, and an automated process swings into action. The system pulls a credit report, invokes a scoring algorithm, accesses an online valuation of the property, checks fraud

and flood insurance, and then makes a loan decision. About 80 percent of the time the customer receives a final decision within two minutes. The system automatically selects a local notary, and the customer completes the process by choosing a closing date.

One of the first industries to adopt automated decision-making approaches was insurance, which has been exploring automated underwriting applications for over a decade. The

industry was also an early adopter of artificial intelligence and expert systems, but those efforts (mostly in the 1980s) did not pay off. Now, however, the use of rules-based technology in underwriting has become pervasive in large insurers' personal-lines businesses, and it is penetrating the more complex processes of small-business underwriting. There have also been

some efforts to automate decision making in other insurance processes, including claims, but adoption in these areas has been slower.

Other industries are using automated decision making to do a variety of tasks, including:

- Intelligent ordering and treatment protocols in health care
- Pricing and matching of demand and supply in electronics and automobiles
- Supply chain optimization
- Call center scripting
- Extension of business credit and financing
- Review of credit portfolios
- IT system configuration

Technology Environment

Although automated decision making is becoming a mainstream business activity, the technologies and vendors that support it are still relatively small scale. Most organizations use "business rules" technologies that are available from a few small vendors, such as Ilog, Fair Isaac and PegaSystems. Some industries, such as insurance, have industry-specific packages available for tasks such as underwriting, which can shorten the time to implementation. Most organizations, however, develop their own custom systems. The technologies involved include a rule language, a rule builder and development environment, a rule editor and a rule repository. Rules are often embedded within other applications, such as an insurance underwriting workflow system.

One major difference between current technology and its AI parent is that end users or managers generally maintain the rule base, rather than technologists. In insurance, for example, IT people and consultants often work with underwriting experts to create an initial rule base, but ongoing management



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*SOURCE: **CIO** READER PROFILE STUDY, MRI, SEPTEMBER 2003



The Resource
for Information
Executives

and creation of new rules is typically done by the underwriters themselves. The goal is not just to establish a rule base but to optimize it. If the system has been operating for some time and there is sufficient data, it's possible to understand the contribution of each individual rule to profitability or some operational measure and then optimize the system by taking out rules that don't add value.

Management Issues

One of the greatest challenges for managers of these systems is finding a sufficient number of experts to both create the system (this typically requires several full-time experts for several months) and optimize it. One manager of a project for small business insurance, for example, had to unplug systems for some policy lines because he didn't have sufficient experts on staff to tune the system and optimize the rules. He could use either underwriting experts or actuaries for this purpose, but neither were available in sufficient numbers.

While experts may be in high demand and short supply, lower-level contributors aren't as necessary anymore. Although we heard of no large-scale layoffs resulting from these systems in our research, one might assume such positions will be filled

less often in the future. Managers need to think about how experts will be developed over time without lower-level jobs to feed these positions. When experts retire or leave the company, where will the next set of experts come from? From a change management standpoint, managers need to communicate as early as possible what will happen to jobs, how decision making will be automated and centralized, and what decisions people will make versus the system. Even experts may have issues with the change, since they'll deal with exceptions and hard cases all the time, rather than just occasionally.

This brave new world has been a long time in coming, but it is clearly upon us now. Businesses need to incorporate automated decision making into their strategies and processes or they won't be successful for long. There is simply too much data, and too many decisions to be made on it, for organizations to pass on this technology. Some jobs may be lost, but firms that improve their productivity in this manner will at least remain in business. **CIO**

Tom Davenport is professor of IT and management at Babson College and an Accenture Fellow. You can reach him at tdavenport@babson.edu.



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Truer Colors

Today's IT workforce is mostly white. Tomorrow's may not be. Now is the time to build an IT organization that welcomes everyone.

THE MOST IMPORTANT DECISION I MAKE AS A CIO has nothing to do with technology. It has to do with whom I hire. Whom I hire determines the skill set, culture and focus of my organization—and also its diversity. I want my team to mirror the entire universe of talent available in the marketplace: males, females, youth, experience. And it should include minorities. Diversity in the IT workforce is not an abstract social goal, nor an exercise in human engineering. Rather it is a business necessity to preserve this country's technology leadership, not to mention my own company's competitiveness.

This isn't a news flash, but there aren't enough technology professionals available domestically to fill the need that exists today. Hiring managers have to be creative. One way I try to counteract *my* IT worker shortage is to have my company be more attractive than others to a broader group of people looking for IT jobs.

When people look around the IT organization and see others that look like them or have similar backgrounds, the entire IT group becomes a more inviting place to work—especially as outsiders and potential recruits see it. The face my organization presents says a lot about the values and the philosophy of my team.



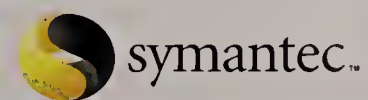
A face that is multifaceted reflects openness and flexibility. By openness, I mean there are no secret formulas for advancement. By flexibility, I mean there is opportunity to cross-pollinate positions and skill sets, as well as a willingness to listen to new ideas and embrace new technologies. If my company recognizes the inherent business value of a diverse community, we will attract the most creative people, and they will thrive once they get here. Minorities have to feel they have a better opportunity for success and the playing field is more level in IT versus other professions.

The IT employees at American Airlines are diverse: 47 percent female and 30 percent minority. While these percentages are respectable, they are not good enough. The Dallas/Fort Worth metropolitan area, where my company is headquartered, is approximately 30 percent Hispanic and 25 percent African-American. We are still trying to recruit a larger share of IT professionals from those groups.



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Ways to Build Your Minority Workforce

Here is what my IT organization is doing as we work toward our goal of making the company—and the IT profession—more inviting to minorities:

Look hard for minority hires. There are fewer minorities than there need to be entering the IT workforce, so you have to look harder to find them. And you have to be diligent. We recruit at colleges where there are many African-American and Hispanic students, and at conferences sponsored by minority professional associations. Then we make sure we view minorities through the same lens as we do others. If you go into an interview thinking about all the things that make the minority candidate you are interviewing different from the rest of your team, your lens needs refocusing.

Early in my career, I worked for a technology company that was trying to open up into the financial services marketplace. I reported to a manager who told me I would not be successful providing solutions to the largest bank in town because I am not Caucasian and Ivy League educated. (I attended Northeastern University.) He suggested I take on a smaller account with less value and therefore less risk. Needless to say, I declined his offer and went on to perform very well. My success had a

depends on everyone in the organization having the same view of what it takes to be successful. In an environment where minorities can thrive, promotions and other opportunities are distributed in ways that reflect the talent available. The distribution should be somewhat proportional to the composition of the workforce as well. If most of the people on your “needs-to-improve” list are minorities, or if the top-ranking minorities in your IT department haven’t earned authority within your group, you have a problem with your environment.

We have struggled to balance promotions among white men, women and minorities. In order to address the challenge, our IT leadership has to remain conscious of our goals. We are learning how to achieve them as we go.

Invest in the future IT workforce. Having goals and objectives for the technological future of the country is not just noble; it’s necessary. Though projections vary, there’s no question that the percentage of minorities in the American workforce is growing. By some estimates, minorities will account for 33 percent of the workforce by 2012 and as much as 49 percent by mid-century. Developing the technical skills of minorities is the only way to ensure that other countries don’t surpass us as technology leaders.

Corporations and their IT employees have numerous opportunities to reach out to minorities in their local communities to ensure this development takes place. Members of the Black Data Processing Association provide mentoring and education to young people of different ethnic backgrounds. In Dallas, the “So Smart” program teaches young girls to explore the technical professions. American Airlines employees support these organizations, and in turn, I support their volunteer work. Encouraging all your employees—white employees as well—to support technology initiatives in minority communities will help to ensure we have enough talent to fill the jobs we create in our profession in the future. Meanwhile, you can make a point to do business with small companies owned by women and minorities.

Of course, there are broader needs to be addressed regarding the training, development and competitiveness of this country’s future workforce, including bridging the “Digital Divide” created by the gap in computing skills between poor and minority students and their more privileged counterparts. Yet we, as CIOs, can make a difference. By creating an environment where minorities feel comfortable and fairly treated, we will attract more minorities to IT. This, in turn, will enable us to draw from the entire universe of talented people. **CIO**

Monte Ford is senior vice president and CIO of American Airlines. Send your thoughts about this column to leadership@cio.com.



Developing the technical skills of minorities is the only way to ensure that other countries don’t surpass us as technology leaders.

lot to do with my subsequent managers—two of the best I have ever known. Not only did they view me as they did others, they considered my ethnicity as an asset to the team. I now make a conscious effort to do the same.

Actively develop minority talent. It is not enough just to hire minorities. You have to make an effort to develop their talent. At American Airlines, we try to identify minorities with high potential. Once we do, it is important they get the same attention as nonminorities. People often relate best to those with whom they have cultural similarities. To work better together and to understand each other’s talents, we have to get to know each other. In my IT organization, we start staff meetings with updates about our lives outside of work, and we learn what we have in common. When we put together individual development plans, we make sure each employee understands the opportunities they’re being given and the support that’s available to him. Managers know they have to help their direct reports succeed.

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APTSOFT

Fast Track → Alignment

Agility in Today's Hyper-Competitive Market Requires Aligning IT and Business Processes: Here's How Two CIOs Closed the "Alignment Gap"

An insurance company with over \$13 billion in assets finds its potential online customers slipping through its fingers. Another enterprise—one that prides itself on its expertise in building customer loyalty—can't quite harness the customer information of its clients in real-time.

Two unique breakdowns, one common solution: Alignment. These two companies required the Business Process/IT alignment necessary to quickly harmonize technology with business strategies, goals and needs. To achieve alignment—a task they realized surpasses traditional solutions in its requirements and goals—they turned to AptSoft.

The AptSoft results are impressive: development timeframes shrank from months to days, benefits in the form of increased revenue and

reduced costs were captured within weeks of deployment, resulting in double and even triple digit ROIs. Read on to learn

how these CIOs closed the alignment gap—and then see whether your organization is ready to take The AptSoft Challenge!

Re: Alignment

For years, business process/IT alignment has been at the top of corporate "to do" lists for business and IT leaders alike. Indeed, as more companies grasp alignment's impact on corporate agility, the practice translates into a competitiveness issue, says Mark Ehr, research director at Enterprise Management Associates, a technology analyst firm.

"Particularly in verticals such as financial services, people are jumping on the [alignment]

bandwagon because they realize they must do so in order to stay competitive," Ehr says.

But historically, progress is almost always frustratingly slow. One of the challenges is that traditional "best practice" solutions have depended on a combination of functionality from Enterprise Application Integration (EAI) technology, Business Process Management (BPM) technology, and Business Activity Monitoring (BAM) technology along with generous doses of brittle custom code.

Now, though, there's a better way—Event-Driven Application Collaboration™ (EDAC) from AptSoft, a paradigm shifting, standards-based approach to alignment that speeds up the deployment—and the results. "We are seeing a lot of movement toward event-driven technology—which could help bring about the ultimate in alignment between IT and business," says Les Yeamans, founder of ebizQ.net, a Web portal focused on business integration.



Alignment Gap

Existing Systems

PROPRIETARY
APPLICATIONS

DATA
INTEGRATION

EAI

PACKAGED
APPLICATIONS

WEB
SERVICES

HOSTED
APPLICATIONS

◀ CIOs realize that the alignment gap is a barrier to greater agility.

Behind the Curtain

The architecture put together by AptSoft is "very unique," according to David Cameron, Vice President of Product Integration at AptSoft. While commercial integration software and custom-coded solutions depend upon a predictable set of stable business requirements, by focusing on the requirements for alignment AptSoft took a different path.

"We realized that alignment requires an approach that is flexible, fast, cost-effective, and collaborative so that end users and IT organizations stay on goal," says Cameron, "and that is the opposite of what yesterday's solutions provide." So, features such as completely decoupled components and a user-interface that doesn't require any knowledge of programming are designed to facilitate the changes that, though critical, can't overcome the brittleness of current solutions. According to Cameron: "Rather than assume a stationary set of tactics in support of a strategic objective, we assumed a moving set, and built our software to enable our customers to execute them successfully over and over again."

Frank Chisholm, AptSoft CEO, says that's why AptSoft's approach is so compelling and relevant to

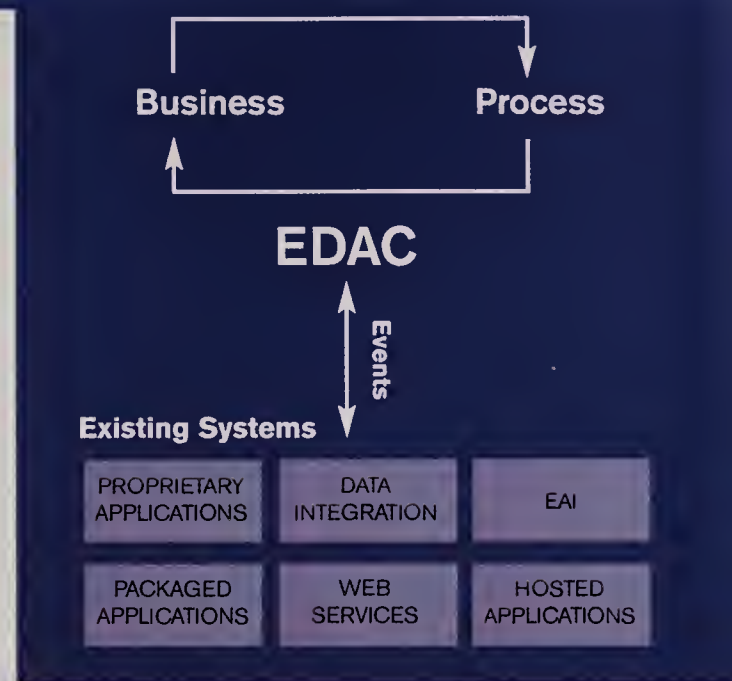
the objectives of today's CIOs. "I've always thought the time would come when we could leverage years of technology development to create a solution that could fundamentally impact how business is conducted. I believe for aligning business processes with IT, EDAC is that solution."

Take the AptSoft Challenge

How serious is AptSoft about helping companies achieve business process/IT alignment? So serious that Frank Chisholm invites you to take The AptSoft Challenge.

Here's the challenge in a nutshell according to Chisholm. "Together we identify a strategic business process to align your existing IT systems with, and we are so confident that we can deliver a working prototype in five person-days, that if we don't we will pay the IT resources assigned to this project for those days".*

* Don't miss this chance to close the alignment gap at your organization. See page 1 to take the AptSoft Challenge.



AptSoft's EDAC technology closes the alignment gap.

Case Study: Alignment Supports Growth Goals

To bring in new insurance business, the company (which, for competitive reasons, prefers to remain anonymous) had set up a self-service web site targeted at consumers. But results weren't measuring up. So, in July of last year, the CIO offered a number of vendors the opportunity to solve this strategic problem: too much activity coming through the company web site (particularly in comparison with key competitors) was not turning into business, diminishing revenues and reducing the effectiveness of the whole marketing organization. Four specific problems needed to be addressed:

- A significant percentage of quote requests started online by consumers were simply abandoned incomplete. The company had no good mechanism for trying to rekindle this business;
- When consumers submitted quote requests for automobile insurance, if they failed to provide a vehicle identifica-

tion number, the system would simply provide a default price estimate based on the most expensive class of coverage—a luxury automobile, for example. This would often frighten off the prospective customers, so the company wanted a way to interact in a timely way indicating that providing the vehicle number would yield a more accurate and probably much more appealing price;

- When consumers claimed to have had no motor vehicle violations for two or more years, the insurer needed to be able to seek clarification if its own information was at odds with this assertion;
- Finally, the company wanted a reminder mechanism for individuals choosing to insure with it to offer them the opportunity to "up sell" — acquiring potentially profitable additional coverages for a nominal charge.

Together, the four challenges involved the Web application itself, the call center infrastructure, as well as the company's central database, which ran on an IBM mainframe.

Based on the compelling return, the fast time-to-market, and the flexibility AptSoft was able to demonstrate using Event-driven Application Collaboration and the AptSoft Director Series, the company gave AptSoft the go-ahead to build a solution. According to David Cameron, AptSoft's Vice President of Product Integration, from the time his team got the go ahead to build the solution in late January, it took a mere two weeks to complete development. Within a week of going live, the system had already produced dramatic results. Indeed, in just one of the four functional areas, quotes in which the consumer failed to provide a vehicle identification number, the system delivered business from 2,000 new customers.

Case Study: Alignment Reduces Costs, Improves Loyalty

Circles™ Company Associates, Inc., the leading provider of loyalty management solutions, is another company that recently seized the benefits of EDAC by adopting AptSoft's Director series software.

Circles needed a way to quickly align its own applications with each client's changing business requirements. The company's entire value proposition is built around the real-time use of information to drive business processes. Its unique suite of concierge, personal assistance, and incentive and recognition services engage the customers and employees of Circles clients in a personal and memorable way to generate value from increased loyalty.

Through the use of key operational systems, Circles forges an ongoing dialogue, providing client organizations with an opportunity to learn more about their customer's and employee's needs and preferences. Circles' Personal Assistants

then use these insights to offer personalized time-saving services that make its clients indispensable.

Deb Ryley, vice president of IT at Circles, explains that clients are increasingly requiring Circles to rapidly integrate key loyalty management processes with their own internal transactional systems and repositories. "We had one client in particular where we were trying to automate customer verification," she says. "We wanted to reach into their system based on account numbers and pull that information into our Siebel CRM system." That member verification process would then push the transactional data on the service request to Circles' customer automatically. The client required Circles to provide real-time Service Request data, and used AptSoft to pull, package and send the data to the client's web service, eliminating the need for Circles' service professionals

to re-enter data into a separate system.

The challenge initially seemed daunting. "We are a small company so we wanted something inexpensive with its own queuing system," says Ryley. And Circles wanted to avoid any impact on the process that the service professionals use within Circles itself from the translation and movement of data to a repository. "One of the things that was appealing about AptSoft Director," says Ryley, "was that it was configurable in terms of creating simple business rules." Just as important, AptSoft came in and worked with Circles through deployment and testing. "We started working with them in October of 2003 and launched a few months later," Ryley says.

The results have been impressive, and the system has been easy to maintain. "We have had to make a few tweaks to the business rules and logic, but that has been easy," she says.

"I've always thought the time would come when we could leverage years of technology development to create a solution that could **fundamentally impact how business is conducted**. I believe for aligning business processes with IT, EDAC is that solution."

—Frank Chisholm
AptSoft CEO

High Impact Areas to Apply the AptSoft Challenge

The AptSoft Challenge is ideal for aligning your existing IT systems with processes where the business logic is dynamic and changes frequently. Some good places to look for alignment opportunities include:

- Online activity abandonment and cross-channel coordination** (websites, call centers, sales, marketing, Interactive Voice Response Systems (IVRs), transaction processing, distributors, etc.)
- Customer/distributor self-service** (IVRs, websites, call centers, issue resolution, intranets), customer acquisition (websites, call centers, sales, marketing, distributors, transaction processing)
- Cross-sell and product adoption** (websites, call centers, sales, marketing, distributors, transaction processing)
- Segment-driven delivery** (marketing, analytics, field service, data warehouses, distributors, transaction processing, sales, websites)
- Customer retention** (websites, distributors, field service, call centers, sales, marketing, transaction processing)
- Distribution channel productivity** (distributors, website, intranets, customer service, transaction processing)
- Supply chain productivity** (purchasing, fabrication controls, receivables, planning)
- Streamlined provisioning processes** (websites, field service, call centers, distributors, intranets, transaction processing)

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STATE OF THE CIO 2004

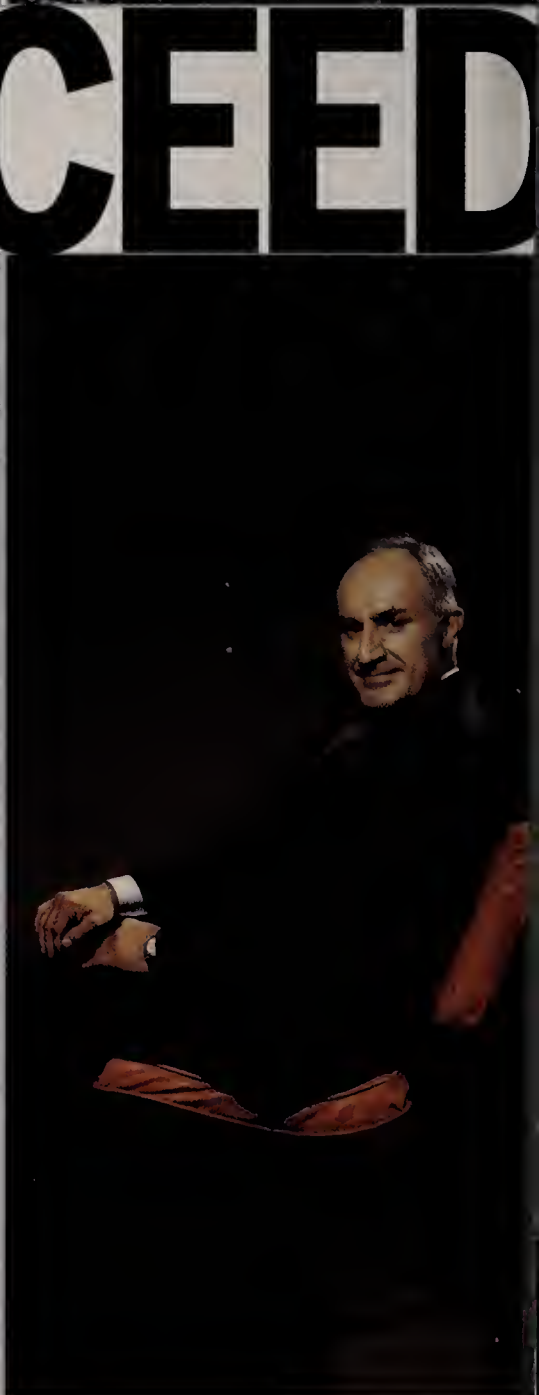
HOW TO SUCCEED



:: TOP The conflicting calls to keep IT costs down yet still innovate with IT drive CIOs nuts, says Dennis L'Heureux, CIO of Rockford Health.

:: MIDDLE For CIOs to succeed in difficult times, says Ken Meidell, CIO of Cascade Designs, it's essential to face up to reality. No whining allowed.

:: BOTTOM Formerly IT director at Stratex Networks, B. Lee Jones was named CIO because he was able to execute IT projects that supported the CEO's vision—so says his CEO.



IN THIS ISSUE

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Staying in the Game
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Reconcilable Differences
- 96 ■ THE NO. 1 CHALLENGE:
Managing Expectations



UNDER PRESSURE

Our third annual survey of more than 500 heads of IT tells us what successful CIOs are doing to meet a host of new challenges...and what others are failing to do

BY EDWARD PREWITT

■ CIOs TODAY LIVE IN A WORLD OF QUESTIONS WITH NOT A LOT OF ANSWERS.

Will demands for cost-cutting never cease? How can you retain (or gain) a seat at the executive table? What does your CEO expect from IT—and how realistic are those expectations? The answers to these and many other conundrums will determine your future and the future of IT in your organization.

In truth, the CIO role has been changing ever since it came into being two decades ago. But “The State of the CIO 2004,” our third annual exclusive survey of more than 500 heads of IT, shows an uptick in the demands being made upon CIOs. For many of you, the pressure has never been greater and the keys to success never harder to find.

Many of the factors behind this changing dynamic are not of your making and some are out of your control: the difficult economy, first and foremost, but also new regulatory challenges such as Sarbanes-Oxley and the maturation of the offshore out-

The POWER of PRODUCTIVITY

sourcing market with all its attendant opportunities and pitfalls.

But other difficulties have arisen in areas that CIOs can address proactively. Alignment between the business and IT remains fragile and sometimes elusive. It's up to you to improve it. Organizational politics affect CIOs like never before, as your success—and your fate—has become tied increasingly to that of other executives. It's time to build alliances. And the day-to-day requirements of the CIO role, which now look very much like those of any other business manager, raise the issue of how well the IT background of the typical CIO prepares him for the job. There are ways to build your business skills. Employ them.

To learn how your peers are responding to the pressure, to these changes and challenges, read "What Really Matters: Staying in the Game," Page 68.

SAME JOB, DIFFERENT CONTEXT

"The State of the CIO 2004" survey shows that in many ways the content of the CIO job hasn't changed at all. The same three skills for job success have topped the list for three years running: effective communication, strategic thinking and planning capabilities, and an understanding of business processes and operations. For three consecutive years, the top use

was a new but related entry in the survey: creating and maintaining healthy relationships with other CXOs. Membership on the executive team was a close second.

The greatest barriers to CIO effectiveness this year were unrealistic or unknown expectations from the business, inadequate budgets, and a lack of time for strategic thinking and planning. These concerns also appeared near the top of the list the previous two years. To find out how your peers are overcoming these hurdles, read "The No. 1 Challenge: Managing Expectations," Page 96.

Unfortunately for CIOs, one other thing hasn't changed: pressure to lower IT costs. In "The State of the CIO 2004" survey, you said the major impact IT had on your organization was to reduce the cost of doing business through efficiency gains and increased productivity. Then, you looked at the coming 12 months and said that cost-cutting again would be your major focus. More proactive uses of IT—such as driving innovation, creating competitive advantage and enabling growth—were pushed down the list as your budget fell too, from 6.3 percent of total revenue last year to 5.6 percent this year.

But some other aspects of how you do your job have changed greatly. As outsourcing continues to be a cost-cutting strategy of first resort (80 percent of you reported using outsourcers

Less money for IT...

(IT budget as a percent of revenue)

2004

5.6%

2003

6.3%

...but CIOs are staffing up.



half of CIOs surveyed reported to their CEOs. Only 11 percent reported to their CFOs. In last year's survey, the percentage reporting to CEOs dropped to 47 percent, while the percentage

OUTSOURCING: THE BIG PICTURE

80% of CIOs outsource, offloading an average of 20% of their IT labor.

of your time has been interaction with other CXOs and with business executives. (For a complete picture of this year's findings, see "The Survey: It's All About You," Page 57.)

The most frequently cited best practice for adding value to the enterprise in last year's survey was serving on the executive management team. This year, the highest-impact practice

or contract service providers, sending an average of 20 percent of the total IT workforce outside), managing this external workforce has become a huge and challenging part of the job.

WHO'S IN CHARGE?

Most significant, your reporting relationships are undergoing a shift. Just two years ago, over

reporting to CFOs doubled. This trend continued in the 2004 survey. The largest proportion (40 percent) of you still reported to your CEOs, but the number reporting to CFOs grew to 30 percent. This shift toward CFO reporting was most pronounced among CIOs in the manufacturing, government and education sectors.

Taken as a whole, this shift in reporting rela-

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tionships may reflect a change in how IT is viewed within some organizations. For these enterprises, the need to hold down margins trumps any dream of innovating with IT—at least until the economy recovers more fully. CIOs who report to CFOs labored with small IT budgets (3.1 percent of total revenue versus the average of 5.6 percent), outsourced more IT staff and spent less time interacting with other CXOs. Among the problems these CIOs reported were, not surprisingly, the difficulty of proving the value of IT, and a lack of alignment between IT goals and business objectives.

diverged on a few significant points. Implementing new technologies—such as radio frequency identification chips—was near the bottom of your list of technology priorities, whereas that's one of the things CEOs want from you. And whereas reduced costs was the top impact you expect from IT, not a single CEO listed controlling IT costs as a top priority. Clearly, not all CEOs view IT as a cost center and nothing more. To learn how CIOs are balancing the conflicting demands of cutting costs while creating competitive advantage, see “Cost-Cutting Versus Innovation: Recon-

so. In fact, only one of the eight high-impact practices was observed by more than 65 percent of CIOs: establishing healthy working relationships with other CXOs, which nearly three-fourths of you said you do.

You can't join the executive team or report to your CEO just because you want to, but other issues are more within your power to effect. For example, in the 2003 survey, CIOs said they spent a lot of time developing IT leaders. In this year's survey, however, staff development fell off sharply both in your priorities and in how you spent your time. That

The **BEST PRACTICES** were not necessarily the most practiced. Being a member of the executive team ranked high on the CIOs' list, yet only 58% of you said you are on one.

On the other hand, CIOs who reported to CEOs worked with IT budgets higher than the norm (6.6 percent of total revenue) and received a higher average salary (\$187,436 versus \$177,229 for the CFO reporting group). The grass is greener on their side.

WHAT THE CEO SAYS

A feature new to “The State of the CIO” survey this year is a pass-along questionnaire from CIOs to their CEOs. The responses from 40 CEOs (responses not viewed by their CIOs) demonstrated significant alignment between CIOs and CEOs, along with a few disconnects.

These CEOs seemed to have a great appreciation for you and for technology. They put a high value on strong working relationships among CIOs and other CXOs and on having CIOs be part of the executive team. In fact, they were more prone to credit IT for creating competitive advantage than even the surveyed CIOs.

While CIOs and CEOs shared many of the same hopes for IT in the coming year, they

cilable Differences,” Page 88.

The pass-along questionnaire also uncovered discrepancies between how CIOs see themselves and how others see them. Whereas 72 percent of you claimed to have healthy relationships with other CXOs, only 55 percent of the CEOs agreed, which, true or not, is worrisome. In addition, when considering eight high-impact practices for IT, a higher percentage of you believed that these practices were already in place than did your CEOs. (For more on aligning with your CEO, read “CIO and CEO: How to Work with Your Boss,” Page 78.)

SUCCEEDING BY REALLY TRYING

“The State of the CIO 2004” survey reveals another problem concerning those eight high-impact practices for IT. The best practices, it turned out, were not necessarily being practiced. Being a member of the executive team ranked number two on the CIOs' list, yet only 58 percent of you say you are on one. Reporting to the CEO is the fourth best practice, yet only 40 percent of the survey respondents do

seems a mistake, given that 69 percent of you said IT's proper role in the enterprise was to “envision business opportunities and apply technology to achieve them,” rather than merely support predefined business initiatives. Without the requisite business knowledge and leadership skills, your staff will be hard-pressed to collaborate in that quest.

The survey results also raise a troubling question about your own preparation for the role of IT executive. The need for CIOs to be businesspeople rather than technical wizards is a theme running throughout this year's survey, yet 70 percent of you said you came to the job through IT. To be sure, CIOs with IT backgrounds can learn business skills. (To learn how CIOs are doing just that, turn to “The Career Path of the Complete CIO,” Page 105.) Yet the question remains: As the CIO role changes in tandem with the changing business environment, are you changing fast enough?

The pressure is not going to go away. **CIO**

Senior Editor Edward Prewitt (eprewitt@cio.com) coordinated this year's “State of the CIO” special report.

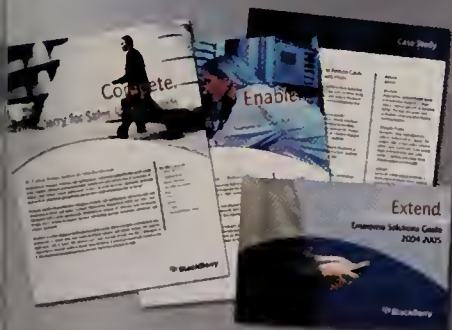


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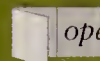
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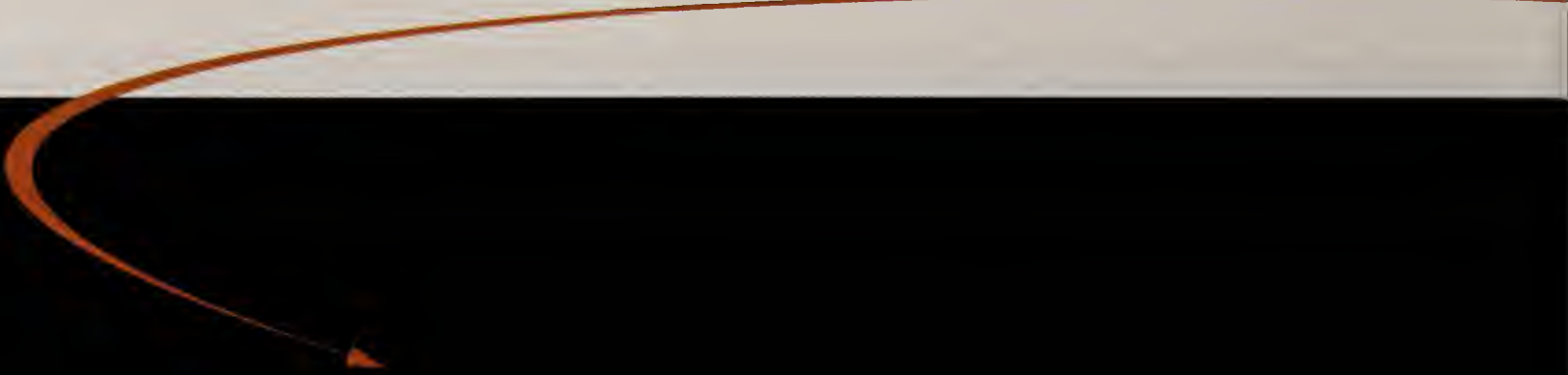
BY
EDWARD
PREWITT,
WITH
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WARE

Your business skills are needed more than ever, the pressure to cut costs is unrelenting, and your relationships with your business peers could be improved. On the plus side, you're planning to add staff and your CEO may have more faith in you—and in IT—than you think.

WHAT'S INSIDE...

- 1 Who you are
- 2 Your IT department
- 3 How you do your job
- 4 IT impact
- 5 The CEO's view of IT

 open gatefold

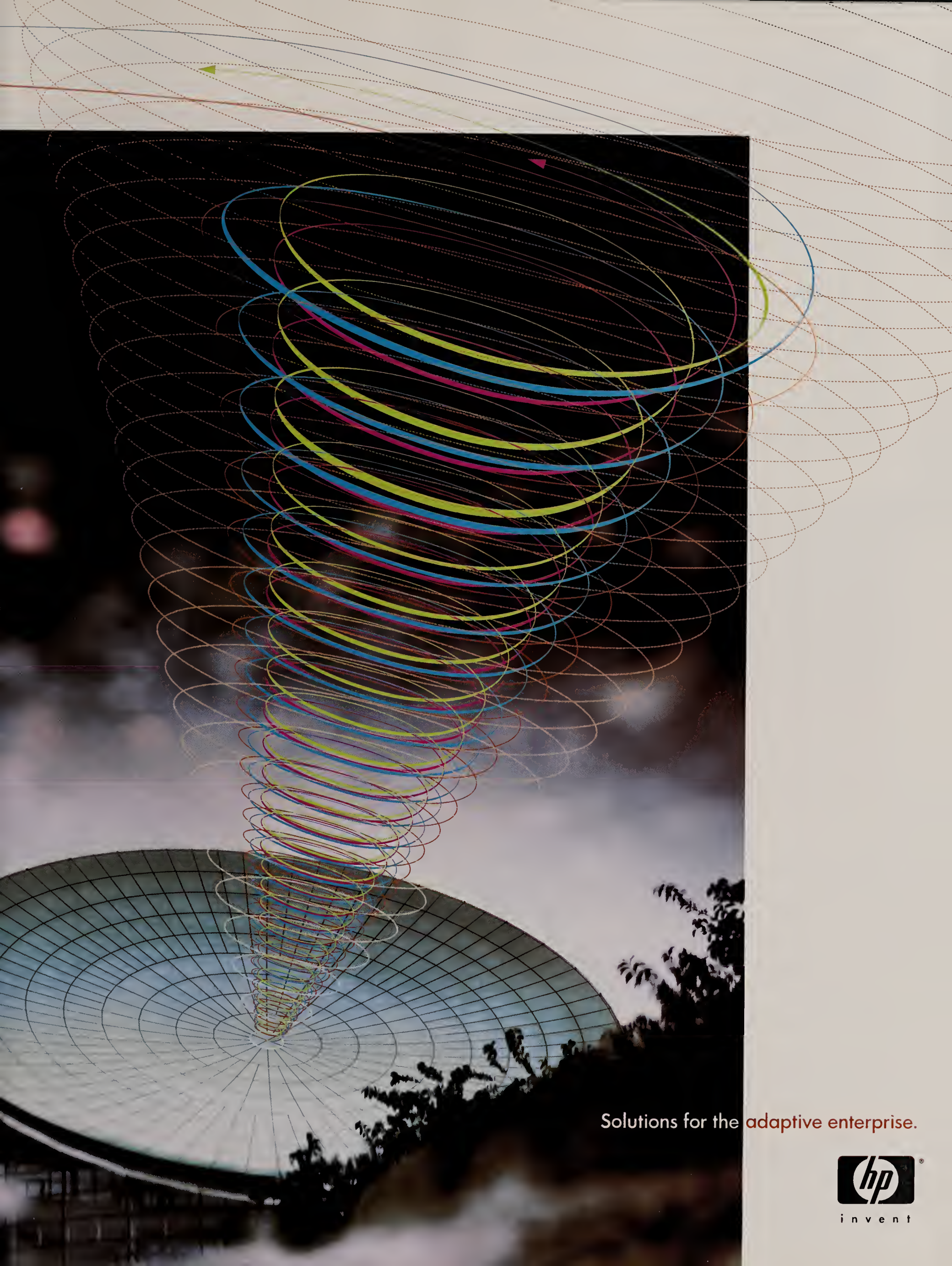


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The spinoff that acted like a startup.

Avaya, a global leader in communication software, systems and services, spun off from Lucent with a legacy IT infrastructure that, while efficient, wasn't nimble enough to be a competitive advantage. HP partnered with Avaya to implement IT Service Management and HP OpenView, effectively re-deploying existing technology assets. Today, IT spending is down 30%. Millions have been saved by finding unused capacity. And Avaya answers whenever opportunity calls.

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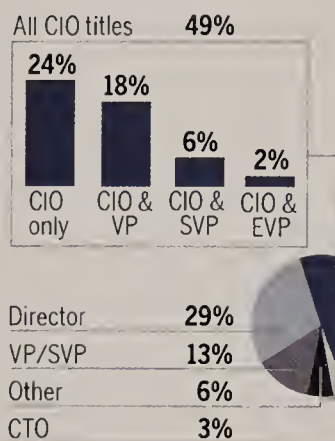


1. WHO YOU ARE

SHOW THEM THE MONEY

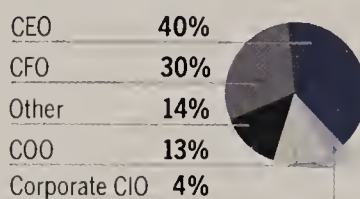
The proportion of IT executives who report to their CFO is on the rise, from 11 percent three years ago to 30 percent today. This shift is concentrated in the manufacturing sector, where tight margins tend to leave little room for innovation with IT. By contrast, only 16 percent of CIOs in finance and insurance companies reported to their CFOs. (See "What Really Matters: Staying in the Game," Page 68.)

Your title



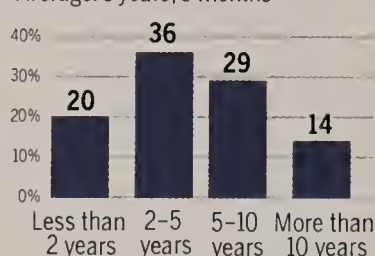
NOTE: CIO title components do not add to 49% because of rounding.

Your boss



Your time as CIO

Average: 5 years, 9 months

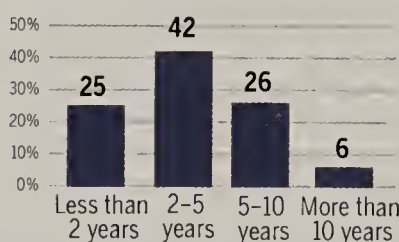


Your average compensation

Wholesale/Retail/Distribution	\$243,304
Finance	\$210,547
Insurance	\$197,697
Manufacturing	\$190,250
Medical/Dental/Health care	\$171,032
Government	\$118,359
Education	\$93,750

Your tenure in current job

Average: 4 years, 6 months



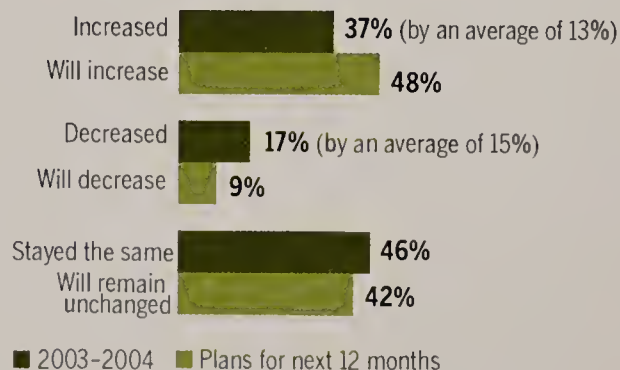
CIO compensation in large organizations was **\$113,143 GREATER**, on average, than in small organizations

2. YOUR I.T. DEPARTMENT

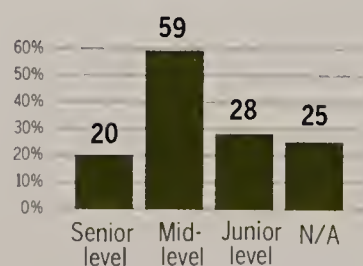
PENT-UP DEMAND

You're feeling a little more optimistic about hiring in the coming year; almost half of CIOs said their IT headcount will increase. There's a pent-up demand for IT workers at all levels and for almost all skill sets.

Change in your IT headcount

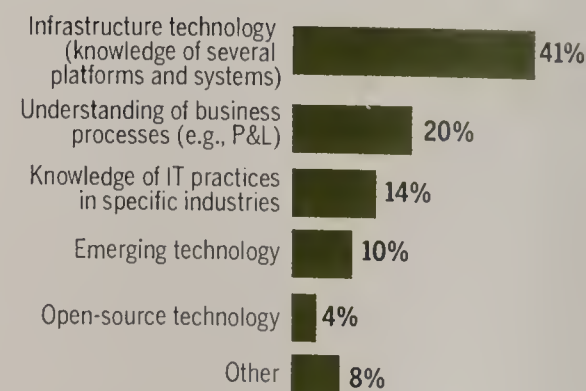


Levels of IT employees you expect to hire



NOTE: Respondents checked all answers that applied.

Skill set you will need most from new hires



Your responsibilities

Enterprisewide IT **85%**
Division's IT only **15%**

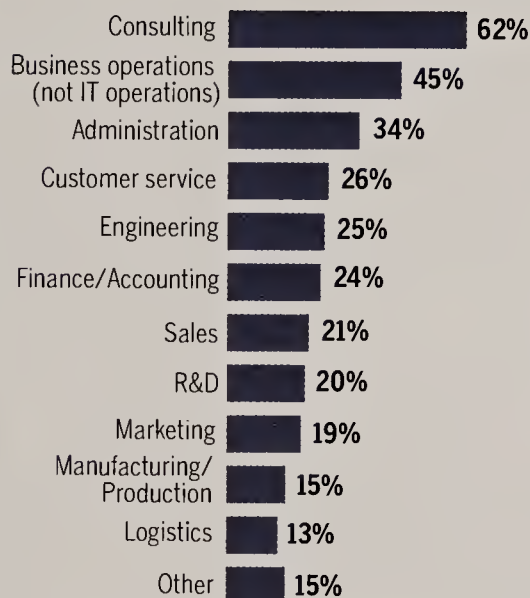


87%
of you
are male

IT'S NOT ALL ABOUT I.T.

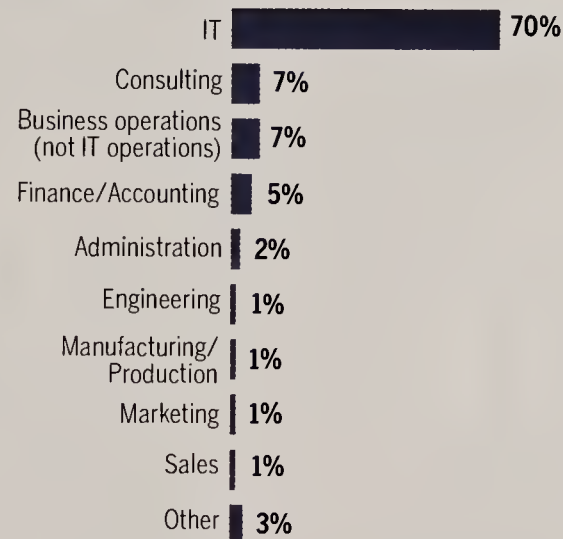
IT continues to be the primary job background for CIOs, but a great many also have experience in consulting, business operations, administration, even finance and accounting. The survey results reflect the current demands of the role. CIOs need business savvy; an all-IT mentality won't cut it. (See "The Career Path of the Complete CIO," Page 105.)

Your job experience other than IT



NOTE: Respondents checked all answers that applied.

Primary job experience in your career

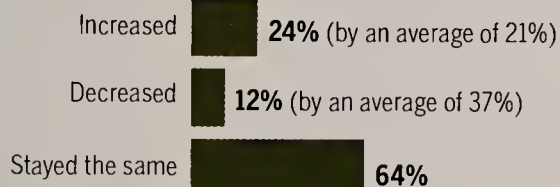


NOTE: There were no responses for customer service, logistics or R&D.

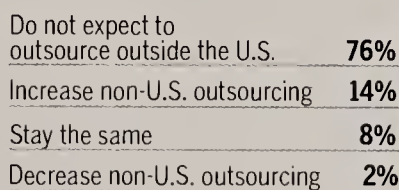
OUTSOURCING'S REALITY CHECK

The publicity given to outsourcing is warranted, but the panic is not: 80 percent of you outsource domestically or use contract service providers, sending 20 percent of your staff outside, on average. But when the smoke is cleared from this hot debate, 76 percent of you do not expect to send IT work overseas.

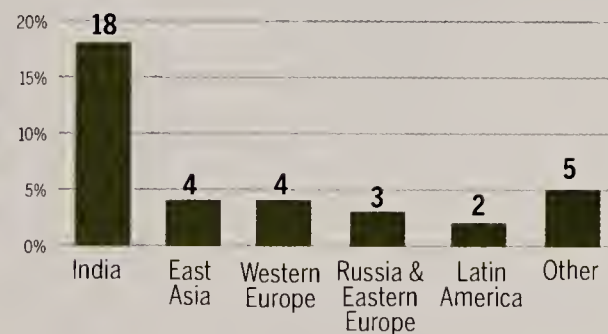
Change in your IT labor provided by outsourcers or contract service providers in past year



Your plans for offshoring during next 12 months



Regions to which you will outsource



IT's budget as percentage of organizational revenue

Finance	13.8%
Government	6.3%
Education	5.5%
Insurance	5.2%
Wholesale/Retail/Distribution	5.2%
Medical/Dental/Health care	4.1%
Manufacturing	2.6%

IT's budget as percentage of organizational revenue, on average, fell from **6.3%** in 2003 to **5.6%**.

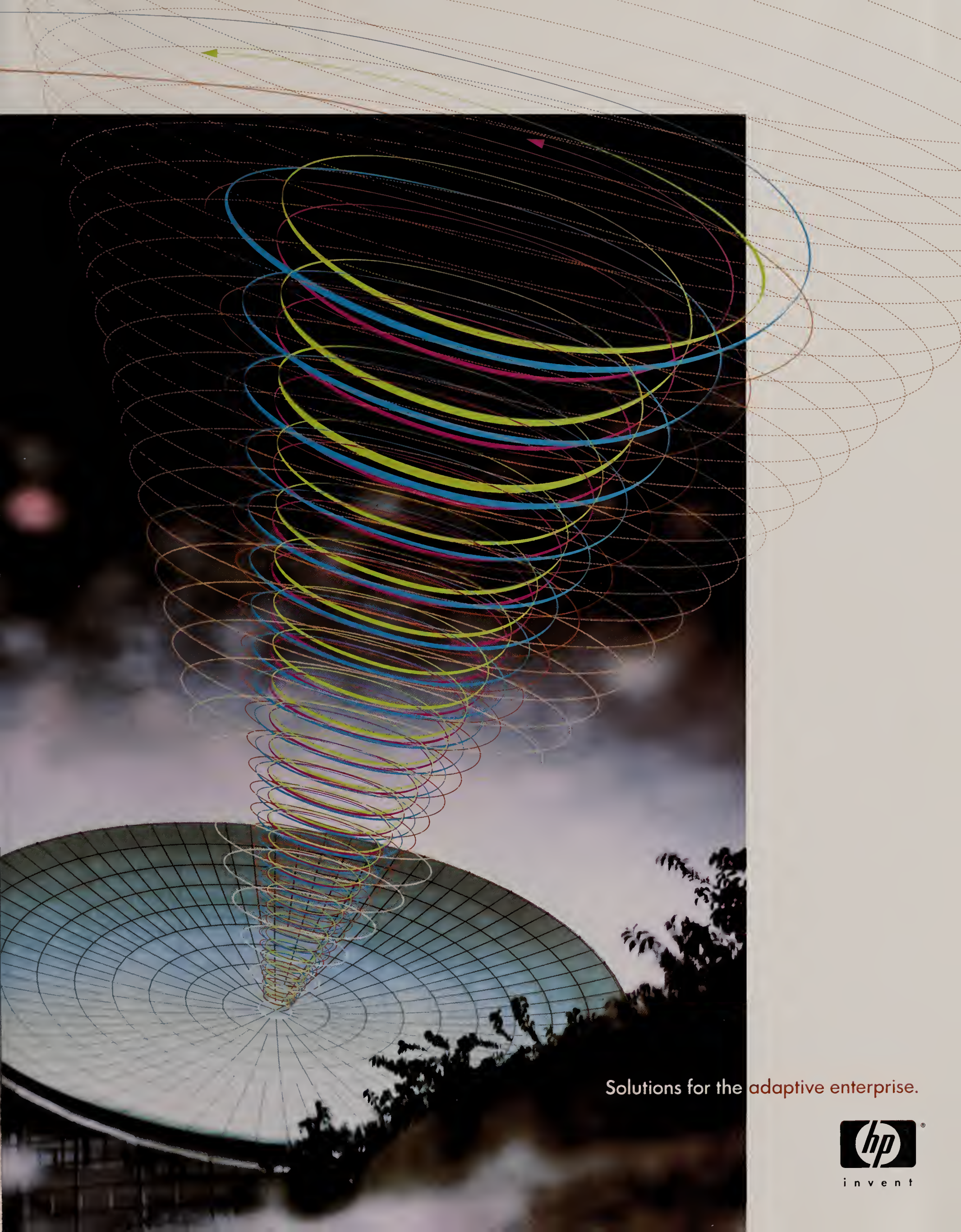


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The spinoff that acted like a startup.

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3. HOW YOU DO YOUR JOB

HARD WORK, UNCERTAIN RESULTS

You say you spend more time working with the business than you do on anything else. Yet you still struggle to set reasonable, realistic business-side expectations for IT. Hard work, it seems, is not always rewarded. (See "The No.1 Challenge: Managing Expectations," Page 96.)

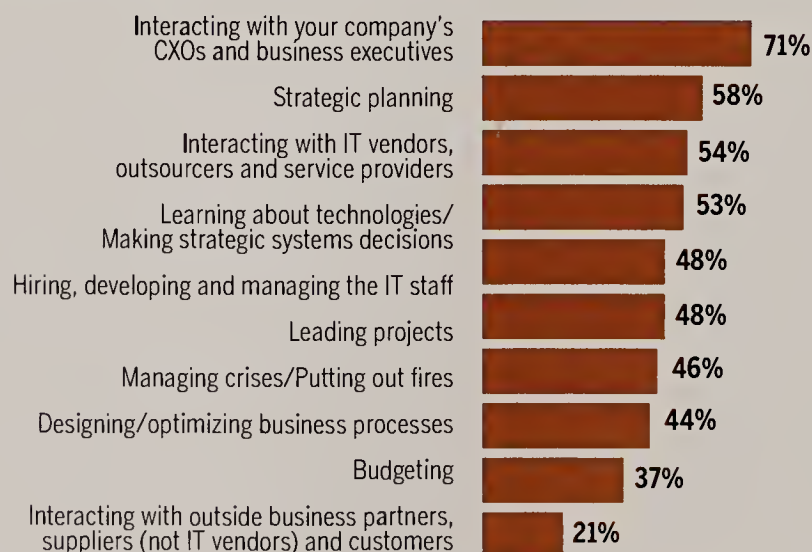
The personal skills most pivotal for your success as a CIO



Your biggest barriers to job effectiveness

1. Unrealistic or unknown expectations from the business
2. Inadequate budgets
3. Shortage of time for strategic thinking and planning
4. Difficulty proving the value of IT
5. Lack of alignment between business goals and IT efforts
6. Risk and uncertainty due to volatile economic conditions
7. Overwhelming pace of technology change
8. Lack of key technical skill sets within IT
9. Lack of business knowledge within IT department
10. Inability to wield effective influence and negotiate favorable terms with vendors

How you spend your time



NOTE: Respondents checked all answers that applied.

EFFICIENCY EXPERTS

Your top priorities center on squeezing more out of what you have. Only after that's accomplished do you want to turn to generating revenue and creating competitive advantage from IT. (See "Cost-Cutting Versus Innovation: Reconcilable Differences," Page 88.)

Your technology priorities

1. Integrate/enhance systems and processes
2. Ensure data security and integrity
3. External customer service/Relationship management
4. Redesign/rationalize the IT architecture
5. Enable/enhance e-commerce
6. Automate/optimize the supply chain
7. Implement new technologies such as grid computing, Web services and RFID
8. Scale IT globally

Your management priorities

1. Increase business efficiency through IT-enabled process improvement
2. Align IT and business goals
3. Improve internal customer satisfaction
4. Create competitive advantage through IT
5. Control IT costs
6. Improve project management discipline
7. Develop staff/leadership/business skills within IT
8. Implement mechanisms for IT governance, portfolio management, etc.
9. Ensure regulatory compliance
10. Enable/enhance knowledge management and leverage intellectual assets
11. Ensure privacy of customer and employee data
12. Measure and communicate bottom-line impact from IT

You share IT spending control with the business: **56%**

You share IT ROI responsibility with the business: **47%**

NOTE: Percentages may not add up to 100 because of rounding. Not all respondents answered all questions.

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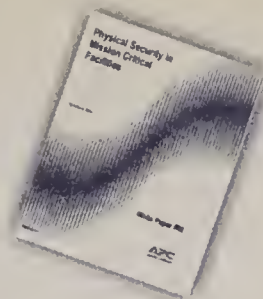
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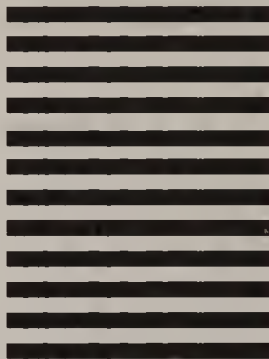
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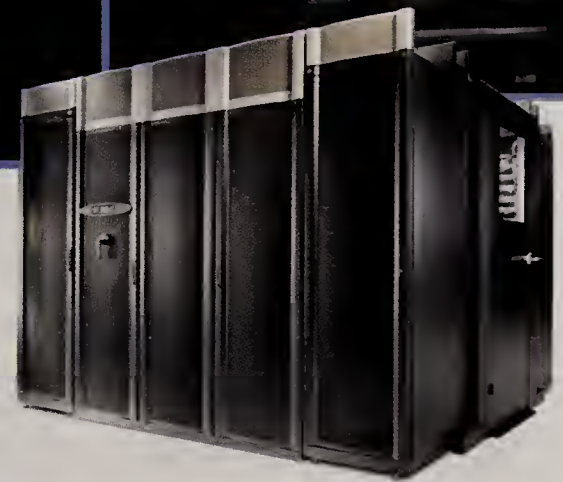
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4. I.T. IMPACT

YOU CAN'T ALWAYS GET WHAT YOU WANT

Most CIOs think IT *should* lead the business rather than merely support it. But until the economy improves, IT's major contribution will continue to be lowering costs. (See "What Really Matters: Staying in the Game," Page 68.)

How CIOs view IT's role in the organization

IT should proactively envision business opportunities and apply technology to achieve them **69%**

IT should support and enable predefined business initiatives **31%**



Your view of IT's impact on the enterprise

2004-2005 expectations	2003 in hindsight
1 Reduce costs through efficiency/increased productivity	1
2 Enable/drive business innovation	3
3 Create or enable competitive advantage	5
4 Enable growth	2
5 Improve external customer satisfaction	4
6 Enable regulatory compliance	9
7 Generate/enable new revenue streams	10
8 Enable global operations	6
9 Streamline the supply chain	7
10 Grow existing revenue streams	8

THE GAP BETWEEN STRATEGY AND EXECUTION

The top practices for creating IT value are all variations on working with business executives. When pressed, however, many CIOs confess that they don't feel they're on an equal footing with their C-level colleagues. (See "How to Succeed Under Pressure," Page 50.)

High-impact practices for IT

Your ranking of effectiveness	How often you actually do it
1 Form healthy relationship with other CXOs	72%
2 Join the executive team	58%
3 Align IT objectives with the CEO's objectives and overall business strategy	65%
4 Report to the CEO	40%
5 Put financial controls in place/proactively manage risk	56%
6 Communicate the financial impact of IT initiatives, including value and costs	62%
7 Use sound governance methods for IT investment	53%
8 Develop the business and leadership skills of IT staff	63%

5. THE CEO'S VIEW OF I.T. Results of the CEO pass-along survey

WORK WITH WHAT YOU HAVE

CEOs wanted you to do more with existing IT systems. Their priorities included integration, alignment and efficiency. At the same time, they expected IT to reduce costs. Only after these things were accomplished, did CEOs want to see IT generate growth and competitive advantage. (See "CIO and CEO: How to Work with Your Boss," Page 78.)

What CEOs say are the skills most pivotal for CIO success

Ability to communicate effectively	83%
Strategic thinking and planning	73%
Understanding business processes and operations	65%
Thorough knowledge of technology options	33%
Understanding industry trends, market forces and business strategy	33%
Negotiation/Sales skills	13%
Technical proficiency	13%

CEOs' technology priorities

1. Integrate/enhance systems and processes
2. External customer service/Relationship management
3. Ensure data security and integrity
4. Implement new technologies such as grid computing, Web services and RFID
5. Automate/optimize the supply chain
6. Enable/enhance e-commerce
7. Redesign/rationalize the IT architecture
8. Scale IT globally

CEOs' management priorities for IT

1. Align IT and business goals
2. Increase business efficiency through IT-enabled process improvement
3. Create competitive advantage through IT
4. Improve internal customer (user) satisfaction
5. Control IT costs
6. Enable/enhance knowledge management and leverage intellectual assets
7. Develop staff/leadership/business skills within IT
8. Improve project management discipline
9. Measure and communicate bottom-line impact from IT
10. Ensure regulatory compliance
11. Ensure privacy of customer and employee data
12. Implement mechanisms for IT governance, portfolio management, etc.

NOTE: Respondents checked all answers that applied.

Continued on Page 66

NOTE: Percentages may not add up to 100 because of rounding. Not all respondents answered all questions.



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5. THE CEO'S VIEW OF I.T.

Continued from Page 64

I.T. DOES MATTER—IN THEORY

CEOs put great stock in IT's place in the enterprise, but they weren't so sanguine about actual IT practices. CEOs said that having CIOs on the executive team was a good thing, as were strong working relationships between CIOs and other CXOs. But a smaller percentage of CEOs believed these and other best practices were already in place than did their CIOs.

CEOs' view of IT impact on the enterprise

2004–2005 expectations	2003 in hindsight
1 Reduce costs through efficiency/increased productivity	1
2 Enable/drive business innovation	5
3 Create or enable competitive advantage	2
4 Enable growth	3
5 Improve external customer satisfaction	4
6 Enable regulatory compliance	8
7 Enable global operations	6
8 Streamline the supply chain	10
9 Generate/enable new revenue streams	9
10 Grow existing revenue streams	7

High-impact practices for IT

CEOs' ranking of effectiveness	How often CEOs think CIOs practice these
1 Form healthy relationship with other CXOs	55%
2 Join the executive team	53%
3 Align IT objectives with the CEO's objectives and overall business strategy	60%
4 Report to the CEO	35%
5 Communicate the financial impact of IT initiatives, including value and costs	60%
6 Develop the business and leadership skills of IT staff	60%
7 Put financial controls in place/proactively manage risk	55%
8 Use sound governance methods for IT investment	35%

CEOs' view of IT role in the organization

IT should proactively envision business opportunities and apply technology to achieve them **56%**

IT should support and enable predefined business initiatives **44%**



NOTE: Percentages may not add up to 100 because of rounding. Not all respondents answered all questions.

“THE STATE OF THE CIO 2004” SURVEY METHODOLOGY

CIO's third annual “State of the CIO” survey was administered online from April 19 to May 19, 2004. CIOs, CTOs and vice presidents in charge of IT were randomly selected from our circulation file and invited to take the survey. The findings shown are based on the responses of 544 heads of IT from a broad range of industries. The results of the study are statistically valid. The margin of error for the survey is $\pm 4\%$.

Like the surveys of the two previous years, this study asked top IT executives about their career paths, job tenure, compensation and reporting relationships. We surveyed respondents about the requirements of the job of CIO and how they perform it—their skills, time management, priorities and hurdles. We asked about the best practices for managing IT and partnering with the business units.

Small organizations (those reporting annual revenue of \$100 million or less) accounted for 25% of survey responses, midsize organizations (annual revenue of \$101 million to \$999 million) for 52% of responses, large organizations (annual revenue of \$1 billion to \$4.9 billion) for 14% of responses, and

very large organizations (annual revenue of \$5 billion or more) for 9% of responses. Respondents came from a broad range of industries, including: manufacturing/process industries (18%); health care (12%); wholesale/retail/distribution (10%); federal, state, local government and military (9%); insurance/real estate/legal (7%); computer-related (7%); finance (6%); transportation/utilities (6%); education (6%); and other (17%).

This year's “State of the CIO” survey was accompanied by a pass-along questionnaire from CIOs to their CEOs. Forty CEOs answered questions on how they view the role of IT in the enterprise and best practices for IT. The CEOs' responses were not viewed by their CIOs. Small organizations accounted for 43% of CEO survey responses, midsize organizations for 36% of responses, and large organizations (annual revenue of \$1 billion or more) for 26% of responses.

Visit our website at www.cio.com/state to see exact sampling numbers and to order copies of “The State of the CIO” research reports.

—E.P.

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WHAT REALLY MATTERS: STAYING IN THE GAME



STEPS TO SUCCESS

- :: If you find yourself with a new boss, work hard to make him or her look good.
- :: Build a strong business case for all IT investments.
- :: Get to know the movers and shakers in the business and find out what would make their jobs easier.

In the end, to whom the CIO reports matters less than whether he or she is a member of the executive team and a valued company player

BY STEPHANIE OVERBY

CIO KEN MEIDELL WAS RIDING HIGH.

The company he worked for—Cascade Designs, a manufacturer of outdoor gear—had acquired a big competitor in 2001, and the CEO charged Meidell with the huge job of integrating its systems with Cascade's. Life was good. "My department and our projects were the center of the universe, and whatever we asked for, we generally got," he recalls.

The integration work was finished during the third quarter of 2002. And IT was no longer at the core of the company's cosmos. "All of a sudden I had to face a world of constraints because other things were suddenly more important than IT," Meidell says. "Clearly my gold star had worn off."

Most IT executives today are in the same boat. To differing degrees, they're dealing with a reality that—to an outsider at least—seems a less than ideal environment for success. The number of CIOs who maintain direct reporting relationships to CEOs is down, from



To keep IT front and center at his company, Ken Meidell, CIO of Cascade Designs, drew up a strategic plan that detailed how business and IT could work together. Then he shared the plan with all his business counterparts.

“If you are a member of THE EXECUTIVE TEAM, you have the passport to go around the organization, to work with the business and get the job done.”

—David Price, VP of IT at the National Multiple Sclerosis Society

51 percent three years ago to 40 percent today; the percentage of CIOs reporting to CFOs is on the rise, from 11 percent to 30 percent over the same three-year period, according to “The State of the CIO 2004” survey. The CIOs who report to CFOs were concentrated in the manufacturing sector. Nearly half of manufacturing CIOs report to CFOs, compared to only 22 percent of the survey respondents from all other industries combined. And there are growing disconnects between top management and the CIO. More than two-thirds of CIOs say they view their role as proactively envisioning business opportunities—a strategic role—yet one of CEOs’ top management priority for IT is increased business efficiency, which is tactical.

To make matters worse for heads of IT, their seniority has slipped. Whereas 68 percent of last year’s survey respondents held the title of CIO, only 49 percent did this year. The percentage called “director” or “unspecified” shot up, from 14 percent last year to 35 percent this year. Non-CIO titles are most prominent in the manufacturing sector and in government agencies. In light of that downgrade in rank, it’s not surprising that IT budgets also dropped in the past year, from 6.3 percent of total revenue in “The State of the CIO 2003” survey to 5.6 percent of revenue in this year’s survey.

The net effect is paradoxical. “CEOs and boards are telling CIOs, Don’t fail; don’t take any risks please,” says Robert Charette, a Fellow at the Cutter Consortium, an IT advisory firm. “On the other hand, the corporation is also saying to keep cutting costs. And how do you cut costs? You have to be innovative and do things that are different and new. The corporation is telling CIOs, Take risks, but don’t take risks.” (For more on this subject, read “CIO and CEO: How to Work with Your Boss” on Page 78.)

Even so, successful CIOs are finding ways to make themselves heard in the executive suite. For the truth is there is only one thing that can singlehandedly sink a CIO: losing strategic partner status within the company. In the end, what matters more than whom CIOs report to—more than the size of their budgets and more than the length of their tenures—is whether the CIO is a member of the executive team (officially or unofficially) and a valued player at that level. “[That] is the key. If you have that, you have the passport to go around the organization, to work with the business and get the job done,” says David Price, vice president of IT at the National Multiple Sclerosis Society (NMSS). “If you don’t, you’ll be put in a box that you can’t get out of, and it will be very hard to be heard.”

The good news is that earning and keeping that seat at the table is something CIOs actually *can* control by making the most of their reporting relationships, aligning themselves with key players in the business, creating a strategic plan for IT and providing real returns for the business. Here’s a look at what some successful CIOs are doing to make sure they remain valued players within their own companies.

MAKE THE BOSS LOOK GOOD

The first thing to realize is that CIOs aren’t alone in the status quo shake-up of recent years. “With the push toward Sarbanes-Oxley compliance and governance in general, people are very worried about the financial impact of IT systems. CEOs now have to start reporting to the board about strategy, so even the CEO has been demoted,” Charette says.

Still, that serves as little comfort to IT executives whose spending is being more closely scrutinized than before, by CFOs rather than CEOs. The attendant shift in reporting relationships is

unlikely to change anytime soon. CIOs who want to remain or become a part of the executive team will need to make the most of their reporting relationships, whatever they may be. “You have to get to know the person [you report to],” says Price, whose boss at NMSS is the CEO. “A bad CEO can make your life miserable. A great CFO can enable you.”

If your boss is the CFO, success can mean a more compelling financial case for IT. “If you can’t show how you’re going to manage financial risks, he’s probably not going to let you go up and make your pitch to the executive team or the board. And even if you are allowed to, the CFO can sit on his hands and not support you,” Charette says. “But if you do a good job, and IT is delivering, your boss is going to want to show you off.”

Making her boss look good is a major *raison d’être* for Jennifer Creger, CIO of Omni Bank in Metairie, La., who reports to the senior vice president and CFO. A CPA by training, Creger puts every significant IT project through a cost-benefit analysis, which makes her boss—and his boss, the CEO, and his boss, the board—happy.

And Creger reaps the rewards. “There is always money available for IT if an initiative is going to improve the bottom line or grow the company,” says Creger, whose budget has actually *doubled* over the past year. Creger is now also a member of the executive team—a first at the bank. That means: “I am able to have that monthly interaction with the CEO and interact with my peer group on a regular basis,” says Creger, whose dealings with those folks would otherwise be filtered through the CFO. As a result, the CEO has included her in creating the long-term strategic plan for the bank. That, more than anything, Creger says, “gives me comfort that I am an influencer.”

STEPPING UP



Fujitsu Arms IT Decision Makers With the **Knowledge and Tools They Need** to Meet Global Business Demands



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CIOS FACE DOZENS OF DECISIONS EVERY DAY.

From managing budgets to setting technology strategies, the choices they make can—and do—dramatically affect the success of their enterprises.

In addition, they know they must get the best possible value from every choice. Informed IT executives know that it's not enough to slice 5 percent out of a budget or to wring pricing concessions from a vendor. They've got to prove, again and again, that every technology in use at their companies is worth the investment. As Toshio Morohoshi, president and CEO of Fujitsu Computer Systems, puts it, "Every day, CIOs are asked to help build business value, drive revenue and help use technology to provide a competitive advantage—and to do so cost-effectively."

To accomplish those goals, many CIOs are turning to total cost of ownership (TCO) methodologies. TCO, which assesses both the direct and indirect costs and benefits of each potential IT purchase, helps CIOs create effective cost justification that reflects the business value of IT as well as supports the capital investment.

TCO is a valuable tool for CIOs bent on getting a full measure of worth for their IT dollars. By choosing technologies that pay off over the long run, they

can be assured of building an IT infrastructure that truly supports the business.

However, the exercise is anything but simple, and it's tough to pull off alone. "TCO is an important investment methodology, and to succeed it's vital that CIOs choose technology partners who can help them reach their goals," Morohoshi says.

As a \$45 billion global enterprise with unparalleled expertise, Fujitsu is such a partner. Drawing upon its 65-plus years of experience in the IT industry, Fujitsu thoroughly understands complex enterprise infrastructures and knows how to enhance them with products, services and solutions to achieve maximum business performance.

CASE STUDY: Canadian Tire Retail

Price, performance, reliability—all reasons why Canadian Tire Retail and the Canadian Tire Dealers' Association chose Fujitsu's TeamPoS 2000 retail point-of-sale terminals and PRIMERGY TX150 servers. Canadian Tire Retail, Canada's most-shopped general merchandise retailer, began piloting Fujitsu systems in select stores this spring.

Full rollout to Canadian Tire's nationwide store network is expected to be completed in 2005, pending results of the pilot, and includes Fujitsu TeamPoS terminals, running Microsoft Windows XPe, and PRIMERGY servers to meet business-critical computing needs at each store location. Fujitsu will also provide complete managed services for technical infrastructure store surveys, staging and integration, installation and maintenance.

Canadian Tire's Associate Dealers, which independently operate 455 stores across Canada, have approximately 5,000 lanes. According to Canadian Tire Retail and the Canadian Tire Dealers Association, installation of the new systems is part of the most extensive in-store technology renewal program in the retailer's history.

"The Fujitsu team has a clear understanding of the technology needs of retailers. They worked closely with us to develop a model illustrating the return-on-investment for a multitude of scenarios," says Neil Maizen, Canadian Tire Dealers' Association's vice president of business and IT strategy.

"In an organization as large and widespread as ours, the cumulative effect of reducing maintenance costs over the life-cycle of technology systems can have a tremendous impact on our business performance. It helps keep costs down. Our new POS hardware will also help dealers continue their focus on customer service and sales growth, rather than on their store systems," Maizen says.

THE FUJITSU ADVANTAGE

Fujitsu also offers an impressive array of technology choices that can match any price or performance need. With one of the industry's broadest server lines, Fujitsu provides a particularly wide range of high-performance, highly reliable choices.

Every year, Fujitsu invests several billion dollars in research and development. That effort has helped propel the company to leadership in providing reliability, availability and serviceability (RAS). The company's mainframe expertise has carried over to its PRIMEPOWER™ and PRIMERGY® server lines, which meet the demands of enterprise customers. Unique in the industry, Fujitsu server development began in the data center, forging technologies that can withstand heavy business demand for constant availability and massive scalability.

Fujitsu strengths include:

- **Breadth of choice.** Enterprises typically build infrastructures that rely on a wide variety of platforms and hardware. Fujitsu is committed to serving the full range of those customer architectures. Choices include the comprehensive Intel® and SPARC®-based lineups, which can meet demand at every level while supporting multiple operating environments, such as Solaris™, Linux and Windows.

- **Performance leadership.** Strategic R&D investment enables Fujitsu to build products that lead the pack in performance. Fujitsu holds many leadership positions on industry-standard benchmarks.

- **Reliability.** When companies rely heavily on technology, unplanned downtime is no longer an option. For that reason, Fujitsu engineers reliability into all of its products.

- **Global sales and support.** These days, most major companies operate globally, so Fujitsu provides seamless worldwide support for customers with multi-region operations. Its company-wide service ethic, attitude and culture are based on decades of experience in mainframes and UNIX platforms and its position as the third-largest IT services company in the world.



Fujitsu
PRIMERGY
TX150 server

SERVERS FOR THE FUTURE

Nowhere is the company's commitment to excellence, cost-effectiveness and reliability more evident than in its broad and deep server lines. From the latest technology of blade servers to server virtualization, Fujitsu has a solution to meet business and technical requirements.

Among the highlights:

PRIMERGY Servers. Whether your business requires affordable entry-level servers, compact and scalable blade systems, or advanced multi-processor servers capable of handling the most demanding data center applications, the PRIMERGY line delivers Intel architecture servers with solid reliability and industry-leading performance. Built with a high level of standardization, the broad product lineup enables Fujitsu to offer a price-performance package that has captured the attention of leading industry analysts.

"Fujitsu is poised to capture a large piece of the expanding Itanium 2 market with its two-way and four-way rack servers," says Vernon Turner, group vice president and general manager of enterprise computing at International Data Corp., a market-research company based in Framingham, Mass. "These rack servers are powerful, flexible, and scalable IT solutions that can help businesses looking to migrate their entire infrastructure to a 64-bit environment, including operating system, database and most critical applications."

The PRIMERGY line distinguishes itself through performance and exceptional scalability. From single-processor systems to 16-way and blade servers, these Intel-based servers deliver the right computing power for all applications, making them the ideal choice for customers looking to stay competitive and succeed in modern e-business environments. PRIMERGY servers support a multitude of operating systems, such as Windows, Linux and all standard Intel-based operating systems.

In addition, Fujitsu offers the industry's highest processor density blade server, a clear indication that the company responds to trends and listens to its customers. The PRIMERGY BX600 server is now available with a quad processor blade configuration.

PRIMEPOWER Servers. The PRIMEPOWER line of servers delivers high-performance, scalable, reliable and cost-efficient solutions for the enterprise. Based on technology forged from

data-center demands, PRIMEPOWER servers are Solaris-compatible and use Fujitsu-developed SPARC64® processors, providing customers with easy access to thousands of Solaris-based applications. They are scalable from one to 128 CPUs and include many mainframe-class features, such as extensive error-correction code, redundant components, I/O multipathing, integrated diagnostics and monitoring service, and hot-swap components—all of which combine to give PRIMEPOWER servers a level of reliability that CIOs can depend on.

The recently announced agreement between Fujitsu and Sun Microsystems includes the joint development and delivery of future-generation Solaris and SPARC-based systems. By mid-2006, the companies will bring together their Solaris and SPARC-based server product lines, creating a complete data-center family. Currently code-named the "Advanced Product Line" (APL), the companies' offspring will rely on features developed with Fujitsu expertise, including the SPARC64 processor.

That processor, which is used in PRIMEPOWER servers, offers outstanding performance and excellent RAS features. In fact, Fujitsu recently announced that the processor is moving to 90-nm fabrication technology and will include further enhancements.

Server Virtualization. By abstracting physical servers into a single virtual machine using management and partitioning software, CIOs can draw from one logical pool of processing power, redirecting resources dynamically as various parts of the business need more or less computing power. The trend will allow companies to optimize their investment as they more effectively utilize the power of their existing machines. The result: They'll save technology dollars while running more efficiently.

Recognizing the importance of virtualization, Fujitsu has made it an integral part of its TRIOLE™ Strategy, which is based on three core technological areas in which Fujitsu has leading-edge expertise:

- **Integration**, which enables the speedy, low-cost, and low-risk implementation of those technologies across the full IT infrastructure spectrum, including server, storage, network and middleware elements.



The PRIMEPOWER server series



offers on-demand provisioning and other automatic features that can reduce TCO by 30 percent or more.

MANAGED & PROFESSIONAL SERVICES

Fujitsu wraps a comprehensive suite of managed and professional services around its solution families. The company provides service and maintenance to keep all components of the IT infrastructure stable, flexible and cost-effective. Whether the customer's enterprise houses Sun, IBM, HP, EMC, Dell or Cisco products, Fujitsu can provide a single point of contact and accountabil-

"TCO is an important investment methodology, and to succeed it's vital that CIOs choose technology partners who can help them reach their goals."

—Toshio Morohoshi, president of Fujitsu Computer Systems

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- **Virtualization**, which separates applications and data from dedicated systems.

- **Automation**, which refers to IT infrastructure's self-healing and adaptive capability to meet changing business needs.

Fujitsu pre-verified solution templates serve as functional building blocks for speeding the construction of highly reliable open-system installations. Faster systems development and deployment let customers increase their business efficiency, agility and continuity while lowering TCO.

"A major advantage of the TRIOLE strategy is that Fujitsu bears the cost of Quality Assurance (QA)," says IDC's Turner. "Removing QA costs and complexity off the customer floor significantly reduces the risk for customers and allows them to implement stable and reliable systems via a shared knowledge base."

One example of the TRIOLE strategy in action is the FlexFrame™ for mySAP™ Business Suite solution. That solution replaces yesterday's complex environment of multiple dedicated servers with a modular concept incorporating the latest business-critical computing technologies, such as Fujitsu PRIMERGY servers. This modular approach simplifies the IT infrastructure and

ity. Delivering a single focal point results in reduced cost and a simplified, more efficient operation with fewer vendors to manage.

In addition, customers can rely on the worldwide network of 65,000 Fujitsu service and support professionals to provide help in person, by phone, via e-mail or through the Web. Yet this global reach has a local presence. For example, QuickStart Services for Fujitsu servers allows companies to engage Fujitsu service professionals to "quick-start" their server(s) and realize a fast, problem-free and production-ready installation. Fujitsu consultants are trained to configure servers to meet the needs of the most demanding environments.

In the end, strategic IT decisions stop at the CIO's desk, and the implications are far-reaching. To face those choices with knowledge and experience, CIOs need trustworthy, reliable partners—such as Fujitsu. ■

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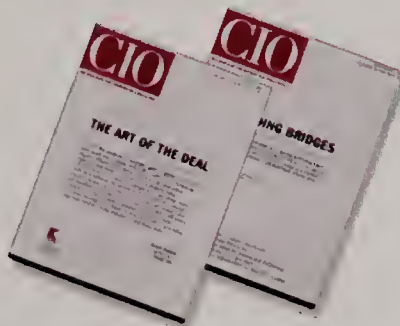
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Executives**



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As the new vice president of IT of Menlo Worldwide Technologies, Richard Carroll found himself reporting to the CFO, even though he had always been philosophically opposed to such arrangements. Just before Carroll's predecessor moved up to lead the sales and marketing department, Menlo's board made the reporting change in an effort to integrate the work and budgets of the IT shops that sit in each of the company's three business units into one larger organization.

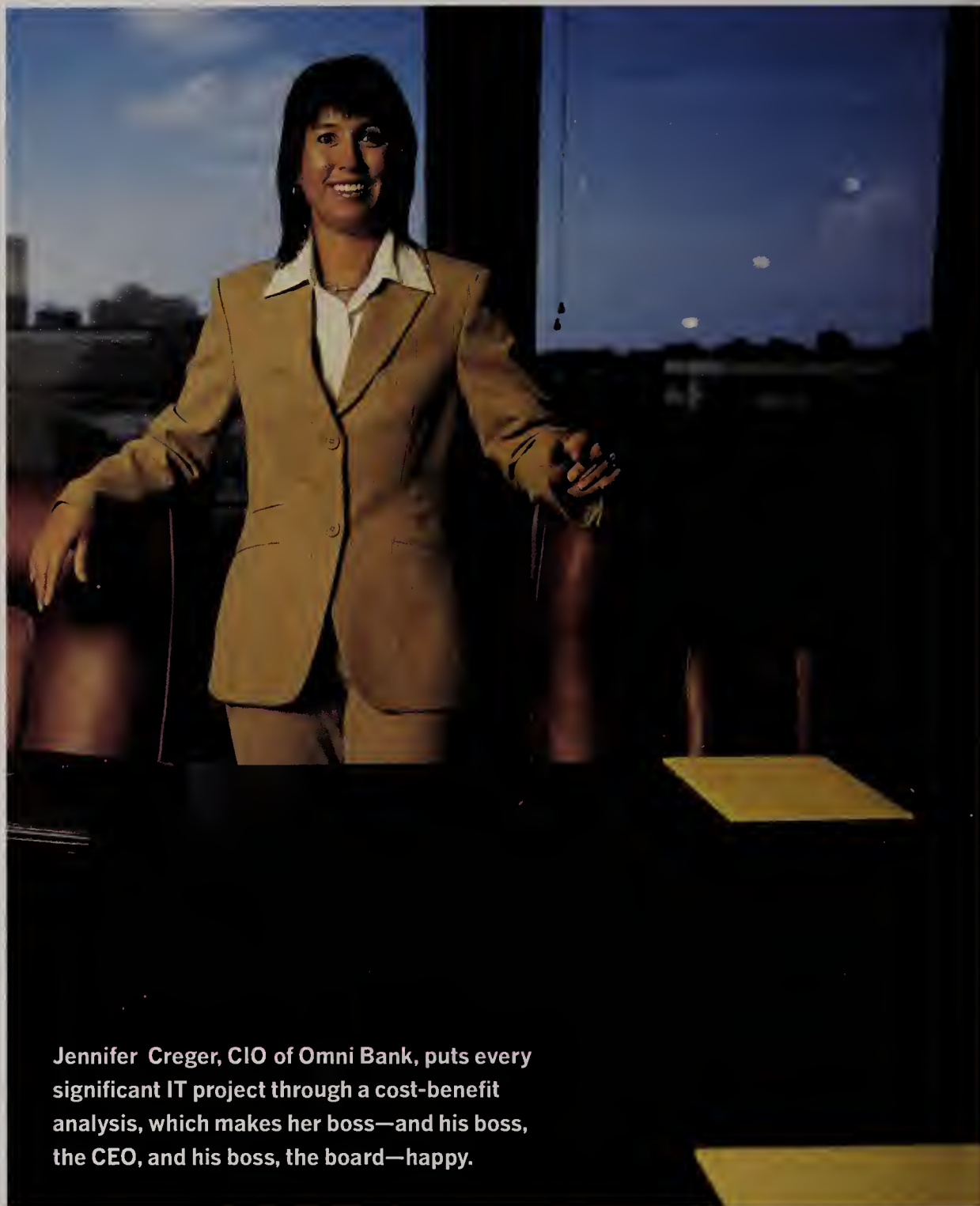
For Carroll, who has a financial background, it's been a surprisingly easy transition. Because of the slim 2 percent to 4 percent profit margins that dominate the transportation industry, Carroll's focus is on keeping the IT budget flat and wringing more out of his vendor contracts every time they're up for renewal. But he's also proved himself to the company by creating a small startup within IT that sells technology to Menlo's midsize customers and is already posting a profit. As a result, "IT is no longer that internal administrative area that is constantly getting beat up by the rest of the organization, with 10 percent budget cuts every year," Carroll says. "We're actually contributing to the overall strategy and success of the organization."

Carroll's boss, CFO John Rocheleau, agrees. "IT is so critical to my success," he says. "[Richard Carroll] knows what I expect from IT and ensures that before he promotes any project, it meets my requirements."

BEFRIEND THE BUSINESS

For Omni Bank's Creger, the only thing as important as keeping the lines of communication open with the executive team is maintaining her relationship with the heart and soul of the bank: its salespeople. She joins in on sales calls. She takes account managers out to lunch. She sits down in their offices and strikes up conversations—not about IT, but about what challenges that salesperson is facing on a daily basis.

"If I want to be something other than a cost-cutter, I have to focus on the income side



Jennifer Creger, CIO of Omni Bank, puts every significant IT project through a cost-benefit analysis, which makes her boss—and his boss, the CEO, and his boss, the board—happy.

of the business and figure out how information technology can be valuable to them," Creger says. At Omni Bank, the income side of the business is personified in its salespeople. That little extra investment in time yields big returns. "I engage them and represent them. And now businesspeople within my company will say, I know Jennifer will get that done for me," she says. (For more on cost-cutting, see "Cost-Cutting Versus Innovation: Reconcilable Differences," Page 88.)

Creger also cites the importance of creating IT application owners within the business—whether in sales or finance or HR. She approached the lead manager for the business unit using major applications and asked if she

would take on the job—which involves becoming an expert in the use of the application, working with vendors and programmers on enhancements, and making sure the application is meeting business needs. Omni Bank's branch operations manager, for example, is the application owner for teller software. After becoming knowledgeable about the application, she cross-referenced the software manual and determined that some of the system's capabilities were not being used. As a result, she changed some business processes, worked with the programmers to install the capabilities, organized the teller training and ultimately improved the teller process.

"IT is just a means to an end. We don't have

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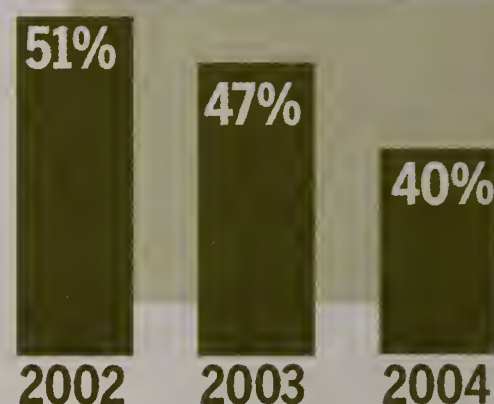
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A SEAT at the TABLE

Fewer CIOs are reporting to their CEOs...



...but there's more to strategic relationships than to whom you report.

- CIOs say their number-one activity is interacting with CXOs and business executives.
- 72% of CIOs say they have healthy relationships with other CXOs—the top practice for high-value IT.

CIO RESEARCH

any initiatives all our own,” Creger says. “If you create application owners in the business, they become the advocates for seeing that the application is successful. And from a budget perspective, you can have the application owners in the business bear the fiscal burden rather than IT.”

Paul Ingevaldson, senior vice president of international business and technology at Ace Hardware, could not agree more. “A lot of CIOs disagree about their role. Is the CIO supposed to be an all-knowing guru who looks at the company and decides by himself what the company needs, and creates an IT plan? Or is it a person who works with the other leaders in the company and decides through consultation what should be done with IT?” says Ingevaldson, who places himself decidedly in the latter camp. His status in the company is assured, he says, because he hands IT decision making and ownership over to the business. “It’s basically about reversing what most people think the CIO is supposed to do. The CIO shouldn’t decide the IT agenda. The business should. So if some department wants to have an IT system, *they* have to sell it to the officers of the company,” he says.

That way, he says, the business takes on the ownership and risk associated with IT—and ultimately, the benefits. “The risk of doing it the other way is you’re going to upset certain factions in the company if you’re not working on their projects. There will be shadow IT departments,” Ingevaldson says. That’s the way it was at Ace before he took over as leader of IT almost 25 years ago.

“There was a very dominant CIO. He was not well supported. The business didn’t like him. And as a result he was not an officer of the company,” Ingevaldson explains.

So when Ingevaldson took over, he decided to take a different tack. “Basically I got everyone involved,” he says. “You can’t be a cowboy and expect to be part of the executive team.” One of the first things he did was create an IT steering committee, made up of all the corporate officers from different areas of the

business. Then, he instituted an alignment committee—headed up by two non-IT vice presidents and populated by business users who review department requests, come up with ideas for what *they* want from IT and match it up to Ace’s strategic plan.

“Those users don’t just pick projects that save money, they also pick projects that are strategic,” Ingevaldson says. “And I don’t think that happens in a lot of companies.” For instance, Ace’s independent dealers challenged IT to develop a single platform for all of its stores. In the past, each store owner could buy whatever system he wanted, resulting in a host of different platforms. Thanks to an IT initiative in 2000 to install a common IT system, Ace will be able to centralize store inventory, which just happens to be the number-one issue in the corporate strategic plan. “The board talks about it all the time,” Ingevaldson says. As a consequence, the board is more than pleased with Ingevaldson.

At the National Multiple Sclerosis Society, Price decided that complaining about the cuts hitting his department would do him little good. Instead, he decided to work with the business to uncover projects that have a real return and move ahead with those.

“Every department everywhere has struggled with cost-cutting and trying to move the business forward. It’s a fact of life. Get over it,” Price says. “My job is to get close to the other VPs and understand what it will take to make them successful. I want to find five or six good ideas in the business and partner with them on those.” For example, Price knows that revenue generation is what keeps the vice president of field operations and development up at night. So he has discussed with this particular vice president the idea of generating more revenue through online giving and is currently trying to implement her suggestions. As a result, “I know I’m working on a topic that’s near and dear to this organization’s heart,” Price says.

Creating such close advisory relationships with business can be beneficial in more ways

than one. “It’s not all about who you report to,” says Menlo’s Carroll. “I learn more about the business from [our business unit presidents] than I ever will from the CFO. If you report to finance, and you look for all your communication to come from the CFO, that’s quite a bit of potential filtering of information. Sometimes you have to ignore those channels and get to the direct source,” he adds.

MAKE A PLAN, MAKE IT KNOWN

CIOs today have only a limited amount of time to make an impression. According to “The State of the CIO 2004” survey, aver-

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age job tenure is four and a half years. And tides can turn either way in that period. "You can accomplish a lot in three or four years," Ingevaldson says. "And you can get into a *lot* of trouble in three or four years."

The surest way to deal with an uncertain future is actually to make a plan. And given the IT climate, it may be best to make that plan a shorter-term one. "I always lay out two or three key things that I'm trying to accomplish that I can stay focused on. And the number one is never cost-cutting. I'm looking for value and efficiency," says Carroll. "The sense is that looking at a two-year horizon is about right." Currently, Carroll's top three agenda items for

Meidell sent the IT strategic plan, which contained a vision and a mission statement, to the rest of the executive team. He also gave an overview of the IT strategic plan in a presentation to the senior and executive staffs. "The big, mondo document was e-mailed to the executive team, and I would guess most probably read it cover-to-cover, based on the feedback I got," Meidell says.

So far, the document not only keeps Meidell and his IT team on track, it also set the table for how business and IT would work together, thwarting a lot of potential misconceptions that could lead to IT failures. (For more on setting expectations, read "The No. 1 Challenge:

way and a bad way to make that a reality. Slashing and burning the IT budget is bad. That decimates a company's ability to get anything done with the IT organization. Instead, reducing the IT spend should be focused on narrowing the number of things a company does in IT. Then, it can provide whatever resources are necessary to do those fewer strategic things well."

For Goldfarb, that has meant conferring with business leaders to identify things to cut from the technology to-do list, such as software upgrades that won't create value for several years. Resources previously devoted to that were rerouted into completing a global rollout of a sales-force automation tool, devel-

"The CIO shouldn't DECIDE THE I.T. AGENDA. The business should. So if some department wants to have an IT system, they have to sell it to the officers of the company."

—Paul Ingevaldson, VP of international business and technology, Ace Hardware

the next two years are reducing redundancies in IT across the enterprise, exploring offshore capabilities and managing his staff well.

When Meidell was hired as CIO of Cascade Designs, he was the first C-level technology executive the company ever had. The previous IT leader was a director, excluded from the executive committee. But as the company grew, the board decided they needed a CIO who could join the executive ranks and help enable business strategy. To make sure his views would continue to be sought as the company grew, Meidell knew he needed an IT strategic plan. He and his nine-person staff sat down and wrote a 22-page strategy document in the language of an annual report. "We had a blank slate. So we had to figure out what do we stand for? What are our goals?" he says. "It was a way to communicate to the business how we saw ourselves, and, in a sense, train the business in how to work with us."

Managing Expectations" on Page 96.)

Aligning the IT plan with the company plan is essential, Ingevaldson agrees. "If the company wants IT to be smaller, understand that and be smaller. If they want you to do only financial projects, that's what you should be doing," Ingevaldson says. "It's the role of the officers of the corporation, not the CIO alone, to determine what they want IT to be."

DO LESS, BUT DO IT WELL

Budget restraints continue for most CIOs. IT shops are largely understaffed, and corporate America is more risk-averse than ever. Part of doing well as a CIO today—and remaining a trusted executive team member—means doing less.

"CIOs and CEOs always have to trim costs," says Eric Goldfarb, CIO and vice president of PRG-Schultz International, a recovery auditing company based in Atlanta. "But there's a good

oping and refining a software product for the company's customers to identify profit leakage, and improving IT customer service levels 30 percent over last year.

In the end, coming to terms with the current state of the CIO role may not be easy, but it's necessary. "There are things in life that you have control over and there are things in life you have no control over. Focusing on what I can control and influence—and not focusing on the things I cannot—is something I have to constantly remind myself of," Price says. "And if reminding myself doesn't work, that's what the executive team is for."

"Part of success as a CIO is facing up to reality you're in," Meidell agrees. "You can spend a lot of time whining about it, or you can deal with it and move ahead." **CIO**

Senior Writer Stephanie Overby can be reached at soverby@cio.com.

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CIO AND CEO: HOW TO WORK WITH YOUR BOSS

STEPS
TO SUCCESS



- :: Stay on top of tactical responsibilities.
- :: Allocate IT resources based on your company's strategic needs.
- :: Create a plan that matches business goals to potential IT projects.

When B. Lee Jones, CIO of Stratex Networks, joined the company, his role was largely tactical: to keep the IT infrastructure running.





Stratex Networks CEO Chuck Kissner encouraged his CIO to move beyond being a tactical service provider to delivering strategic value.

Most CIOs think they're strategic, but many CEOs are focused on IT's supporting role. Here are three ways to get in tune with the corporate vision.

BY MERIDITH LEVINSON

SEVEN YEARS AGO when B. Lee Jones joined Stratex Networks, a developer of wireless transport systems, as its IT director, he stepped into an IT organization that had zero credibility. The help desk was unresponsive, and systems "were down more than they were up." Chuck Kissner, Stratex's CEO, says he viewed Jones's role at the time as a tactical one; the job was to stabilize a network prone to frequent crashes and to build a robust IT infrastructure. But Kissner hoped Jones would quickly move beyond the role of firefighter and add more strategic value to the company.

Jones succeeded. And today he is the CIO, reporting to the company CFO. His executive-level promotion reflects his accomplishment in bringing credibility to the IT organization, as well as in managing additional responsibilities beyond IT that integrate him more closely with the business and the executive management team. Jones now also participates in all capital projects for the company, including building construction, and he negotiates outsourcing contracts with manufacturers. When Stratex was struggling to match supply of its wireless transmission systems with demand, Jones's IT department stepped forward with a solution—inte-

grating the company's siloed systems to manage inventory more effectively. Because of Jones's ability to conceive of and execute IT projects that support the corporate vision and to oversee business-focused decisions, he is viewed more as a strategic partner than he or any IT executive at the 20-year-old company has ever been, says Kissner.

While plenty of CEOs share Kissner's view that IT and CIOs should be strategic, a significant number still look at the CIO role as largely a support function. According to CIO's "The State of the CIO 2004" survey, 44 percent of CEOs surveyed said that the role of the IT department and the CIO is to use technology to support and enable predefined business initiatives, compared to 31 percent of CIOs. Among CIOs, 69 percent take the more strategic view—that their role is to proactively envision business opportunities and apply technology to achieve them. The disconnect becomes problematic when it leads CEOs to conclude that IT is a service function that doesn't need to be involved in the creation of long-term business plans. When CIOs aren't part of those discussions,

Tactical or STRATEGIC?

Even CIOs and CEOs who are well-aligned have different views of what IT does

■ DEFINITION OF CIO ROLE

CHICAGO MERCANTILE EXCHANGE

CIO Jim Krause: Working with business units and the management team to determine the best way to support them and to provide insight on how technology can expand the business as well.

CEO Craig Donohue: Service provider, business partner, and developer of intellectual capital, new technology and better, lower-cost ways of doing things that benefit customers.

■ MOST IMPORTANT SKILLS FOR CIO SUCCESS

KIRKPATRICK & LOCKHART

CIO Steve Agnoli: Communication skills, balance of business and technology savvy, ability to be strategic and tactical, industry knowledge.

CEO Peter Kalis: Move gracefully from the strategic to the tactical, to handle the big picture, understand the details, to be an extraordinary communicator, synthesizer and analyst.

■ TOP I.T. PROJECTS FOR 2004-2005

ASKSAM SYSTEMS

CIO Chris Feola: Upgrade the network, training, putting business processes in place.

CEO Phil Schnyder: CRM implementation, integration of e-commerce and billing systems with CRM system, networking, setting up a VPN.

When the CIO is included in strategic discussions, GOOD THINGS HAPPEN.

they lack a forum for showcasing their capacity for creativity and innovation, making it even more difficult for them to prove their strategic worth.

The survey also shows a reason for the disconnect. Although CIOs say they are strategic, they behave tactically. And that's what CEOs see. Both CIOs and CEOs reported in the survey that reducing costs is the most important impact IT had on the business in 2003 and will continue to be in 2004 and 2005. Enabling growth, enabling or driving

business innovation, and creating or enabling competitive advantage—functions that often as not involve executing some other department's initiatives—ranked in the top five for both groups. More strategic results, such as growing existing revenue streams or generating new ones, ranked near the bottom. "Most CIOs I know would like to be strategic, but they're tactical," says Kissner.

Several factors explain this discrepancy. In interviews, both CIOs and CEOs say there's a lot of wishful thinking among CIOs who

imagine they're strategic but aren't. Many CIOs lack credibility as strategic decision-makers, and they tend to focus on their tactical responsibilities. To ensure that their CEOs view them as strategic, CIOs need to prove themselves, which ironically can involve taking care of tactical matters well. "It's very difficult to be seen as Mr. or Ms. Strategy if the trains aren't running on time," says Steve Agnoli, CIO with the Kirkpatrick & Lockhart law firm. It also helps to make sound decisions about the technology priorities that

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Steve Agnoli (left), CIO of Kirkpatrick & Lockhart, maintains his credibility as a strategist with CEO Peter Kális (right) through IT projects that address strategic business needs.

further the company's strategic goals, and to conceive of innovative ways to use technology to leapfrog the competition.

SELF IMAGE VS. REALITY

Chris Feola, CIO and executive vice president of AskSam Systems, says he thinks the percentage of CIOs who view their role as strategic outweighs that of CEOs because so much of CIOs' professional well-being (including

the size of their budgets) depends on whether they're perceived that way. It's a take on the old Rene Descartes postulate: *cogito ergo sum* (I think I'm strategic, therefore I am). CIOs also may perceive themselves as strategic because they are responsible for the vision within their departments.

But even though they're at the top of the IT food chain, they're still functional executives. CIOs may find themselves being viewed as

having a tactical role because they're the ones who are accountable when a virus hits or a project derails. "There's a certain amount of the CIO's job that is related to implementation [and] maintenance regardless of what business you're in, your strategic goals or who's sitting in the CEO's chair," says Agnoli. By contrast, if a company's infrastructure is running smoothly, a CIO will have more time to focus on strategic matters. Agnoli says he

Both CIOs and CEOs say there's a lot of **WISHFUL THINKING** among CIOs who imagine they're strategic but aren't.

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divides his time down the middle. (For more about how CEOs and CIOs view the CIO role, take a look at "Meeting of the Minds" at www.cio.com/printlinks.)

Finally, CEOs don't see CIOs as strategic because many have failed to make many substantial technology investments pay off. Observes Feola: "If you're a CEO and you've been through four or five CIOs who have left chaos in their wake, your reaction to a new CIO coming in and saying, 'I've got a piano, you've got a barn, let's put on a show,' is 'No, the last time we did that we were rounding up livestock for six months.'"

The problem with all this is familiar: When CEOs don't view IT as strategic, they don't invite CIOs to the planning table. CIOs end up behind the eight ball when, for instance, a merger is botched because no one examined potential systems integration problems. But when the CIO is included in strategic discussions, good things happen. Agnoli says that the idea for Kirkpatrick & Lockhart's online performance review sys-

tem came about because he knows that the firm's strength "is based on the quality of its lawyers and the services they provide over time." Kirkpatrick & Lockhart CEO Peter Kalis, to whom Agnoli reports, says the system, which provides a comprehensive view of associates' skills and experience, was a product of Agnoli attending monthly board meetings.

THREE STEPS TO IMAGE ADJUSTMENT

Because Kirkpatrick & Lockhart's performance system plays a strategic role in helping

the firm develop its employees and also saves money, it enhanced Agnoli's already high level of credibility as a strategist. If on the other hand, you have yet to live down a bad investment, here are three ways to raise your profile.

1. Make strategic choices. Making strategic decisions about projects and communicating them to the CEO will help bridge the rift between you, whether you or a previous CIO created it. Recently, Feola approached his boss, CEO Phil Schnyder, with bad news. Feola said he had to shift some staff that was working on a CRM upgrade over to a development project for AskSam's core database technology product so that the company could make the product release deadline. Problem was, shifting resources was going to cause him to miss a milestone in the CRM upgrade. Feola explained that he thought it was more important to make the product deadline than to upgrade an internal system on time. Schnyder says Feola made the right call.

The WINDING PATH to Alignment

CIOs and CEOs are aligned in many ways...

What they both expect from IT in 2004 and 2005:

- Reduce costs through efficiency or increased productivity
- Business innovation
- Competitive advantage

...but they differ in how they view CIOs' ability to lead IT.



CIO RESEARCH

2. Propose new business opportunities.

Finding opportunities to expand the business also helps CIOs position themselves in a strategic light. Jim Krause, managing director and CIO of the Chicago Mercantile Exchange (CME), decided to adopt the Financial Industry Exchange (FIX) protocol, a standard that is common in the securities industry.

Making STRATEGIC DECISIONS about projects and communicating them to the CEO will go a long way toward bridging any rift between you and the top brass.



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He thought adapting FIX for futures trading would make connecting to the CME easier for customers. As a result, the CME has improved its ability to attract traders because it can bring them online more quickly than competing exchanges. Because more people are trading on the CME, the exchange has increased its liquidity—one key to remaining competitive as a marketplace. Krause (who reports to the company's COO) says his CEO, Craig Donohue, now views him as more strategic because he saw and acted on an opportunity to help the CME's business grow.

3. Promote your agenda. Agnoli advises CIOs who don't participate in regular board or senior management team meetings to lobby for 10 minutes during those meetings to articulate their agendas and their business impact. During his 10 minutes, Agnoli talks about the projects his department is working on and their strategic value, what he is spending money on, and his ideas for achieving business goals. Jones keeps his Stratex colleagues informed about how his IT projects support the company's six high-level corporate objectives. (He uses a diagram as a visual aid.) For example, he conceived of the IT infrastructure

A CEO on His CIO

Chicago Mercantile Exchange head looks to IT to spur growth



Craig Donohue

The Chicago Mercantile Exchange (CME) is the largest futures exchange in the United States, and the world's largest clearinghouse for trading futures and options on futures. Last year, \$333.7 trillion worth of financial instruments was traded globally through the CME. Some 60 percent of its trades are now conducted online. CEO Craig Donohue joined the company in 1989 as an attorney. He was named CEO last January.

■ **CIO: What is the role of the CIO in your company?**

Craig Donohue: The CIO is one of the key people involved in ensuring the operational integrity of our business and market. If you asked me 20 years ago who drives the business, I would have said research and product development—the people who develop new ideas for hedging and risk management. Today, I would say the CIO is as critical a component as R&D.

■ **Why do you think so many CEOs still view the IT function as tactical?**

People are still catching up to the idea that technology plays a critically important role in the future growth opportunities for most businesses. You don't have to travel very far back in time to remember when technology was this sort of arcane thing that very few people understood.

■ **What have you and your CIO, Jim Krause, done to get on the same page?**

Jim understands that sometimes his job is to provide service, and at other times it's his responsibility to bring forward ideas for ways we can expand the business. I have to be an advocate for advancing the ideas generated by the IT group and helping people understand the impact those innovations can have on results. —M.L.

CIOs HAVE TO DEMONSTRATE that they can come up with ideas to make their companies more competitive.

that Stratex needed to roll out a new product line and track software licenses—a project that supports corporate growth.

Once CIOs have established themselves as bona fide strategic contributors, CEO support follows. When Krause suggests ways to make the CME operate more efficiently, Donohue promotes those ideas inside the organization and helps explain how they will make a particular product more profitable. When Ask-Sam's marketing department complained to

Schnyder about a decision Feola made to shut off software used for tracking prospective customers, he went to bat for Feola and explained that the CRM upgrade Feola was working on would address their needs in a better way.

The fact of the matter is, CIOs have to be both strategic and tactical. That's what their CEOs say when pressed. But for CIOs to be perceived as strategists first and enablers second, they have to demonstrate that they can come up with ideas to make their companies

more competitive while at the same time fulfilling their tactical responsibilities. No amount of blustering about the contribution of IT will change the way others perceive you.

Concludes Kalis, Kirkpatrick & Lockhart's CEO: "Whoever wishes to occupy a seat at the strategic table, whether the CFO or CIO or COO, he or she will have to earn it." **CIO**

Senior Writer Meridith Levinson can be reached at mlevinson@cio.com.

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Dennis L'Heureux, CIO with Rockford Health System, balances the CEO's vision with budget reality by being candid about the feasibility of I.T. projects.

COST-CUTTING VERSUS INNOVATION: RECONCILABLE DIFFERENCES



- :: Cut costs wherever you can.
- :: Find business unit allies to champion strategic projects.
- :: Explain how visionary ideas impact the IT budget.

The CEO is pushing you for new systems that create competitive advantage. The CFO is pulling you to cut costs. Here's how to strike a balance, without being torn apart.

BY BEN WORTHEN

ROCKFORD HEALTH SYSTEM, the largest health system serving northern Illinois and southern Wisconsin, recently had its main hospital named one of the 100 most wired hospitals in the country. But don't think that CIO Dennis L'Heureux has carte blanche when it comes to IT spending. On the contrary, L'Heureux has a budget to watch.

Recently, L'Heureux considered a self-service benefits module that the HR department was requesting. The system would have allowed hospital employees to manage their benefits from their home computers and would have helped fulfill the Rockford CEO's vision of using IT to make the company a better place to work. The software licenses, however, would have cost \$40,000 a year. That price tag was all it took for the COO, the officer charged with keeping

expenses down, to question why the hospital would even want its employees accessing the system from home. Without his support, the project never got off the ground. "There are no easy decisions left anywhere," L'Heureux laments. When it comes to cost, "everything can be second-guessed."

L'Heureux's experience is common for CIOs. In "The State of the CIO 2004" survey, CIOs said that the greatest impact by far that their departments have had on the company in 2003 is reducing costs. Meanwhile, CIOs rank controlling IT costs and increasing business efficiency top priorities. The numbers are nearly the same whether the CIO reports to the CEO or the CFO. On the other hand, among 40 CEOs surveyed separately, most said that among their highest priorities for IT were enabling a competitive advantage and better alignment with the rest of the business. Only 30 percent said that controlling IT costs was a priority.

It's a decidedly mixed message, one that L'Heureux says "drives me nuts. In a way it soothes me to hear that I am not alone." L'Heureux and other CIOs say the conflicting signals originate in the different roles that each executive plays in the company. "CEOs are the visionaries, and they don't have a problem spending," says Peter Milla, executive vice president and CIO of market research company Harris Interactive. But for every forward-looking CEO there is a COO or a CFO following behind whose job is to get the CIO to achieve that vision for a little less money. Often, it's the COO's voice that is loudest, says Scott Bess, CIO of Goodwill Industries of Central Indiana. "There is a lot of pressure from the operations side that we have

to manage costs," he says. "All the CIO is hearing is, keep your costs down; you are overhead."

CIOs need to serve two masters. On one hand, they need to keep costs low to please the COO and CFO; on the other, they must continue investing in IT projects to give the company a competitive advantage to satisfy the CEO. The CIO alone must successfully bridge this gap. There are strategies for doing this, most of which boil down to old-fashioned office politics and communicating with executive peers.

First, CIOs need to concentrate on managing their budgets, thus satisfying the COO and earning more slack for the financial leash. Then CIOs must use that extra leeway to align IT with the business even if the business isn't taking the lead. When the heads of the business units understand and experience the benefits they get from IT, they will become important advocates for future projects. This is a crucial step toward getting projects approved in a cost-conscious environment while at the same time addressing the CEO's vision. Finally, when CIOs have face time with the CEO, they need to be as candid as possible about the trade-offs they face between controlling expenses and pursuing new investments.

It's a tricky balance, one that places as much weight on a CIO's ability to communicate as on his ability to deliver a project. But the rewards for pulling off this trick are great. When he first took his job as CIO with Manufacturers Bank, Adrian Danescu reported to the CFO, who was focused on keeping IT spending down. After years spent controlling costs and building alignment around strategic projects, Danescu was promoted to exec-

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utive vice president and now reports to the CEO. He's no longer questioned about every dollar. And when it comes to how the IT budget should be spent, he says, "Now, they listen to me."

CUT COSTS WHEREVER YOU CAN

There's no better way to get your COO to loosen the purse strings than to prove you're a penny-pincher. When Danescu first joined Manufacturers, he built credibility with his boss by looking at every contract. "If they weren't good [deals], I said I would replace them," he says. He ended up cutting costs by almost 40 percent. Danescu says that once he showed he understood the importance of the balance sheet, the CFO started listening to his ideas. "You have to speak their language to have credibility," he says.

Suzanne Gordon, CIO with software company SAS, says that in order to afford the strategic projects, she sometimes cuts corners on routine investments. Recently she decided to delay replacing aging phone switches in some of SAS's regional offices. "We'll get by and hope they don't break for another year. We'll take a little extra risk in this area in order to spend more in exciting areas," she says. One new opportunity that her staff is excited about is hosting applications for a small number of SAS's clients. The IT department likes the project because it is a new challenge; the CEO likes it because it may turn into a new revenue channel.

Goodwill Industries' Bess says that CIOs need to deliver routine projects on time and within budget. "The little things need to work," he says. "Make sure the network is up, and get projects done on time." This helps earn the trust of the COO and other executives, who then will worry less about

costs. Once you have that trust, you need to work at keeping it, says Bess, by resisting the temptation to use your newfound credibility to do projects just because you have always wanted to do them. "We can't [be] repairing PCs even though the staff likes to do that," he says. "We outsource that so that we can concentrate on mission-critical apps."

CREATE ALLIANCES TO ADVANCE VISIONARY PROJECTS

Cutting costs may win you credibility with the COO, but CEOs and line-of-business executives want business results. Alignment of IT and business goals is CEOs' top management priority for IT in 2004, according to the survey. So it's not surprising that in



At SAS, an I.T. governance group helps CIO Suzanne Gordon keep projects cost-effective and aligned with business goals.

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their responses to the survey, CIOs say they spend most of their time interacting with their company's CXOs and business executives. In interviews, CIOs advise that if business unit heads are not eager to work on an alignment plan, you should come up with one yourself that tracks business goals and matches them with potential IT projects that would help advance them. CIOs can then bring these proposals—tempered by budget realities—to business unit heads.

Gordon uses an IT governance group comprising representatives from SAS's business and functional units to bridge the gap

a business unit champion is more important than any metric that could justify a project on its own.

"We read a lot about ROI, but it is hard to prove with IT projects," especially visionary ones that will change how work gets done, he says. While having a line executive's endorsement doesn't guarantee a project will get the go-ahead, "if the nursing officer says that a project would help us recruit [more nurses], that takes priority," L'Heureux says. "It is a complicated political reality."

A good relationship with the business units can also help CIOs keep costs down on

shortcomings, he says, but following that instinct is just going to create more problems down the road when projects fail.

Of course the CEO may reiterate his message, but you've planted the seed for more discussion. "I was talking with my CEO a couple of months ago," says Bess. "We were talking about the large projects we have coming up and how they will position us. We also talked about the cost [aspects] and if now is the right time to do [them]. But his main focus was how will this position us."

"I think my CEO assumes that I have an adequate budget," says L'Heureux. He adds

Rockford CEO Gary Kaatz says that when he thinks about IT projects, he thinks about POTENTIAL IMPACT, NOT COST or even feasibility.

between cost-cutting and strategic needs. First, the group provides her with fair warning of each business unit's goals and gives her plenty of time to research how IT can best contribute to those goals. Planning ahead helps to keep projects cost-effective. "Now we know as much as a year in advance what [the business units] are thinking about," she says. "It gives us more time to work with vendors and find cheap alternatives."

The endorsement of the IT governance group also generates institutional support for IT projects. According to the survey, proving the value of IT projects ranks fourth among CIOs' greatest challenges. A project seems a lot more valuable when the CIO is not the only executive trumpeting it. L'Heureux agrees that for a project to withstand the cost-cutting pressure that the COO will apply, it is important for the business unit that will benefit to become the project's champion. In his opinion, having

business heads' pet projects. Gordon kept fielding requests from HR and other departments for a system that tracked employee performance reviews. But when the governance group heard all the resources the project required, everyone agreed that they should make do with the current system a while longer.

BURST THE BOSS'S BUBBLE

The most important person in the organization to please is still the CEO, of course. But CIOs can't be afraid to cloud the CEO's vision with reality. When the boss starts talking about his grand vision for IT, it may be tempting just to say, yes, I can do that. But CIOs suggest that it is best to be candid about what the IT department can and cannot do given its budget constraints.

These are tough conversations to have. "In some places, that can get you fired," says Bess. The natural instinct is to try to hide

that his CEO understands technology but doesn't always understand that simple-sounding systems can still cost a lot. "What seems to be an easy solution is often very complicated," he says. L'Heureux says that part of his job is to inform his CEO about the technology projects the hospital is considering.

For his part, Rockford's CEO Gary Kaatz says that when he thinks about IT projects he thinks about the potential impact, not the cost or even the feasibility. "I look at what advances patient care," says Kaatz. "That could mean a radiologist getting a digital picture, a system that makes sure a patient doesn't get a wrong medication or a smart IV pump," Kaatz adds. "These are some of the largest capital investments in the organization. I need my CIO to be honest and candid" about whether they are feasible. **CIO**

E-mail feedback to Senior Writer Ben Worthen at bworthen@cio.com.

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THE NO.1 CHALLENGE:

MANAGING EXPECTATIONS

BY THOMAS WAILGUM

- The biggest challenge for CIOs is business executives' unrealistic expectations of what IT can do. Here's how to lead business to a more realistic understanding of IT's role.



STEPS TO SUCCESS

- :: Actively manage the expectations business executives have of IT.
- :: Make sure business can count on IT to deliver value.
- :: Learn the business strategy and communicate IT's role in furthering it.

A true tale of the classic end-run:

After months of RFPs, due diligence and testing, a CIO selects a solution from his primary vendor. Let's say it's for supply chain management software.

His CEO, meanwhile, accepts an invitation to play a round of golf with the CEO of a supply chain software provider, who just happens to be a competitor of our CIO's primary vendor. Over 18 holes, a beer or two and a fine cigar, the CIO's CEO decides that his golfing partner's supply chain offering would be a much better fit. The CEO makes a new friend, the new friend gets a new contract, and our CIO feels like he just took a Titleist to the head.

Don't be too quick to lament the CEO's capriciousness in this example, however. Was it really a case of an inspired day on the links for the CEO—or the fact that the CIO in our example had not forged a strong enough relationship with his CEO, had not known the CEO's expectations for this new system and had not communicated why the system he selected was the best choice? His inability to take these steps made his boss all the more susceptible to manipulation.

The CIO in our example is not alone. Our "State of the CIO 2004" survey shows that managing CEO and business-side expectations is a major challenge for CIOs. In fact, respondents cited "unrealistic or unknown expectations from the business" as the highest hurdle to their job effectiveness, trumping inadequate budgets, proving IT's value, and alignment between business goals and IT efforts, among other hurdles (see "The Survey: It's All About You," Page 57).

Actively managing business expectations is crucial to CIO success because it leads to better IT governance, alignment to business strategy and more sophisticated project management. Not actively guiding business expectations of IT can make CIOs ineffective, and turn them into little more than order-takers for the business. Brad Brown, a partner in the Business Technology Office at McKinsey & Co., says the expectations gap is a result of the classic business/IT disconnect. "These people live in very different worlds," he says. "But enlightened CIOs are quite adept at bridging the gap, and putting the IT world in the language of the business and in the control of the business."

Managing business expectations is, of course, easier said than done. The concept demands a Herculean effort, forcing CIOs to venture outside their IT department safety net and into the teeth of the business side. Here are five ways to bridge the expectations gulf.

1: GET YOUR HOUSE IN ORDER

You can't start managing business-side expectations if business users don't expect anything from your IT department to begin with. "If your underlying delivery is not yet in shape, you're not in a position to start leading in any way," says Brown.

Signs of an IT house not in order: blown project delivery dates, unclear IT governance processes, lack of organizational structure, incompatible technology deployments or no IT strategic plan for supporting the business. In other words, chaos. "If you don't have discipline, you have chaos. And chaos is expensive," says Robert Moon, CIO of ViewSonic, a maker of LCD displays, plasma TVs and other display products.

Moon's mantra for getting the IT house in order is simple: Simplify. At ViewSonic, he steers clear of incomplete software solutions, custom application formats, incompatible databases, and complex and expensive interfaces. Those things result in a Tower of Babel situation, he says. He preaches streamlined operations and a single, global technology interface using one central system. "There's not a lot of integration here," he says. "For example, we had three instances of Oracle customizations before I came to ViewSonic. I got rid of it, and cut staff from 30 to 13." Moon says that because of his centralized operations he was able to meet Sarbanes-Oxley requirements "fairly painlessly" and he can manage global rollouts much easier. He boasts that all of that has helped him keep IT costs under 1 percent of gross sales.

2: SHUT UP AND LISTEN

Once you've gotten your IT act together, then you must turn your attention to the people using your systems. To Jim Burdiss, now is a crucial time for expectations management because the economy has shown sparks of life, and the IT coffers have creaked open. "As the funding starts to come in from loosened budgets, the demand will go up because the businesspeople have been waiting for so long," says the CIO of Smurfit-Stone Container, a producer of paperboard and paper-based packaging products. "Now we have to go the extra mile to manage those inflated expectations."

Burdiss, who spent a year on the business side before becoming Smurfit-Stone's CIO, talks about going into "listen mode" when meeting with vice presidents and general managers of Smurfit-Stone's five business units. He sets up semiannual reviews with them in which he asks about the state of their individual business and what IT can do to enable their business to function better. He uses these get-togethers to set expectations about IT's role. "I'll say, 'I need a meeting with you to talk about what it is you're trying to do, and how we can figure out collectively how to get it done,'" he says. "If your target is growth, let's talk about what IT can do to help your sales force to free them up to make more calls.' IT has to take an out-in-front posture."

Ron Ponder, the veteran CIO who's now at WellPoint Health Networks, the nation's second largest HMO, embeds senior IT staffers in each business segment who operate in an account representative mode. "They are the funnel for the needs of that business unit," Ponder says. "Those people live with that unit, support that unit, and bring back into our meetings their project needs, their business needs."

Moon says that although he is strict on costly customizations to his existing systems, he is always willing to sit down with anyone and listen to what they want. "Other VPs and directors know that I'm approachable. I won't say no out-of-hand," he says. ViewSonic's CFO, Jim Morlan, concurs. "[Moon] has developed an open and supportive atmosphere about IT throughout the company, so other departments feel comfortable and are quick to approach him with their needs or ideas," Morlan says. Because Moon reports to the CEO and has a seat on the senior management team, Moon is able to "evolve the global IT strategy to complement the corporate direction," Morlan says. "The CIO helps develop and set the expectations of the [business executives'] departments and ensures that those objectives are achievable and will be beneficial in moving the company toward its goals."

3: EDUCATE THEM

As CIO, you have to be part teacher too. McKinsey's Brown says the perception of IT from business leaders is, "I know I write a big check, but where does the money go?" IT is still a bit of a black box and is not well understood [by the business side]."

To combat that, Ponder says he describes to the business in writing what the deliverables are on all IT projects so there are "no misunderstandings on what they're getting." He heads monthly IT governance meetings with all the business-unit heads. There he talks with them about their unit's user and customer-facing needs, how IT can help them achieve their goals and reviews the status of WellPoint's top 10 projects. The monthly meetings force any of those issues that could derail a project to rise to the top so that he can fix them quickly. "Sure, things are never perfect," Ponder adds. "But it's a matter of finding those issues and resetting them quickly."

Moon doesn't stay chained to his desk. He says he practices "management by walking around," and he preaches awareness about software salesmen who make Friday

Your BIGGEST BARRIERS to Job Effectiveness

	2002	2003	2004
1	Lack of key staff and skill sets, retention	Inadequate budgets and prioritizing	Unrealistic or unknown expectations from the business
2	Inadequate budgets and prioritizing	Conflicting business priorities among business units	Inadequate budgets
3	Lack of time for strategic thinking	Aligning IT efforts with business goals	Lack of time for strategic thinking

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NOT ACTIVELY GUIDING business expectations of IT can make CIOs ineffective, and turn them into little more than order-takers for the business.

afternoon calls to his vice presidents and managers, promising quick fixes for sales-force automation, business intelligence and supply chain systems. "These people promise the ultimate solutions that cost nothing and integrate with everything," Moon says. "We have a policy that people cannot have a salesperson come in to do a pitch without IT present." When asked if this is a written policy, Moon chafes. "It's just known." Which is a testament to the clout that Moon has achieved.

That policy came into play recently when ViewSonic's vice president of sales was having trouble keeping track of which customers salespeople were visiting and of the growing number of contacts. The sales department was using a standalone contact management system combined with an e-mail system to do that, and it just wasn't working. Knowing that the sales VP was unhappy, Moon took the initiative to sit down with him, find out his requirements for a new system, and find one that would allow the sales department to grow and play nice with Moon's systems already in place. "The VPs know what we're trying to achieve. If you don't go out willy-nilly, buying different software and have fewer, noncustomized systems, we can pull all these things together where all the systems talk to each other," Moon says. "The VPs also know that it's not going to do any good to go around me [and go to the CEO for approval]. He's just going to say, 'Go see Rob.'"

4: GET ON THE AGENDA

How can you meet the needs of the business going forward if you don't know where those executives want to go? If you're not already on the CEO's agenda, there are ways to get on it—even if you don't feel welcome. That means attending the CEO's strategic planning meetings, presenting quarterly project updates and talking regularly with stakeholders in the executive suite (see "CIO and CEO: How to Work with Your Boss," Page 78).

Without question, though, IT must be woven into the business plan. "We develop the IT and business plan, but it's not a separate thing," says WellPoint's Ponder. "IT must be so totally integrated that you can't peel IT apart from the business plan. IT becomes part of the fabric of the business plan. It's a great way to keep business expectations known."

One bold way to force that kind of integration is to do away with the IT steering committee, and transfer that meeting's agenda to the executive staff's agenda. "We do have an IT steering committee, but it's called the business planning meetings," says Moon. "Why should IT be in a separate meeting?" But what if you've consistently gotten the cold shoulder from the brass? "If you have an honest, sincere interest in becoming involved with the business, people aren't going to say no to you," Moon says. "Say to the executives, 'I really want to be plugged into the business. I need to be involved in the CEO meetings.' If you're not involved, you can't support the business."

5: COMMUNICATE EARLY AND OFTEN

In the end, managing expectations is all about communication. "The mentally exhausting part of the job of the CIO is the level of communication that must be accomplished," says Burdiss. "But it's the difference between an IT shop that is customer-friendly and one that is off doing what IT wants to do."

At Smurfit-Stone, communication comes in various flavors. Burdiss has an Office of Continuous Improvement that provides information and guidance to users on anything from system changes and upgrades to virus alerts and power outages. For example, when a virus hits Smurfit-Stone, Burdiss gives updates every four hours on the status of the system and when the e-mail system will be up again. He also produces an annual IT report and sends quarterly newsletters to all 14,000 employees. "I strongly believe that there's no such thing as the ability to overcommunicate," Burdiss says.

Clearly, how you manage business expectations is up to you. But it's critical to remember that if you don't, you might lose your spot at the executive table—or worse. "I think it's incumbent on CIOs to work even harder at managing those relationships," Ponder says. "We simply can't sit back and hope that the situation—that those expectations—will always be aligned. That just doesn't happen."

And getting back to our beleaguered CIO whose supply chain saga opened our story: He did something very decisive after his CEO decided to go ahead with that other supply chain solution. He quit. **CIO**

Send Staff Writer Thomas Wailgum your executive tales at twailgum@cio.com.

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From the Publisher

gbeach@cio.com

What's Your Backlog Index?

FEELING OVERWHELMED? If so, you certainly have cause. Last year at this time, the CIO Magazine Tech Poll reported 47 percent of organizations had a “significant” application backlog. One year later, that number has risen to 62 percent.

I opened a recent speech using that rising application backlog data. I asked audience members to raise their hands if they had experienced a budget cutback in the previous three years. Nearly every hand shot into the air. I then posed a follow-up question: During the same time period, how many were asked to implement an equivalent cutback in information? After a few chuckles, all hands retreated.

With mobile devices proliferating, with government regulations demanding the creation and storage of mountains of data, with many companies beginning in earnest to link partners, suppliers and customers in Web services or service-oriented architectures, CIOs and their organizations are drowning in oceans of information. And that was before Sarbanes-Oxley and radio frequency identification (RFID) hit the scene.

Using 2001 as your base year, how much information has your company created on a year over year basis from then until now? I know it is difficult to guesstimate. Some look to how much storage they had then and now. However you benchmark that, do the same exercise for a more finite data point: the growth of your IT budget.



Gary J. Beach

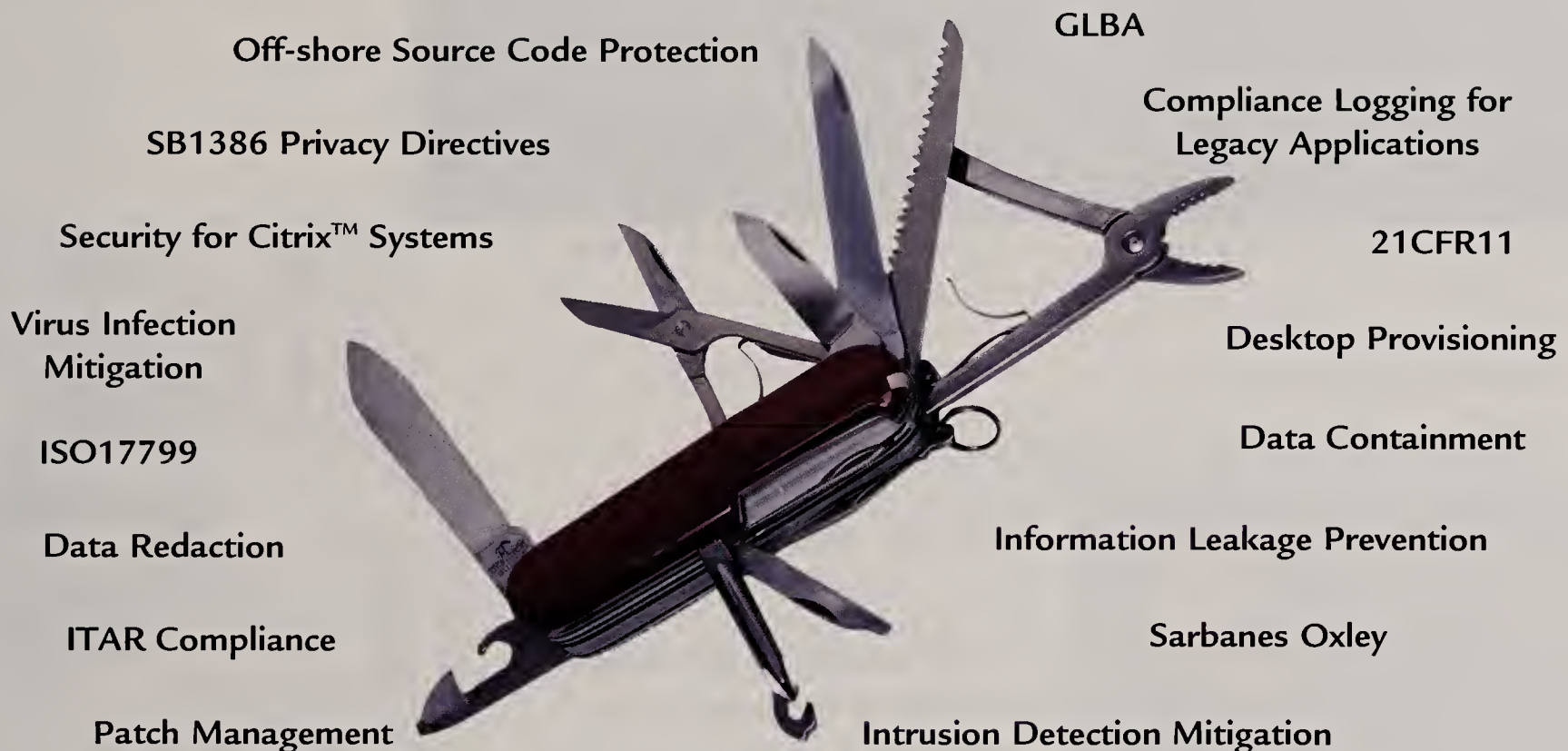
Got both numbers? Now let the fun begin. Create your own “Application Backlog Index” by making your information growth percentage the numerator and your IT budget growth the denominator. Let’s say the information growth percentage of a company is 20 percent. Its tech budget growth in real dollars is 5 percent. That company’s Application Backlog Index is four, meaning information growth outpaced tech budget growth by a four to one margin. What was your number? The closer it is to one, the more competitive you are.

Though I may not convince all CIOs to take this exercise into their corporate boardrooms to get their next budget approved, it does quantify two key points. Since 2001, most companies have been stingy with IT budgets while at the same time creating, storing and communicating information as if the dotcom bubble never burst. Tech infrastructures, possibly including yours, have not been thoroughly modernized in nearly four years. And many of your business colleagues, relying on information now more than ever, are constantly at your doorstep demanding new applications. Hence, the 62 percent rate of significant application backlog.

How much of an increase should you ask for in your next budget?

The most recent CIO Magazine Tech Poll pegs a minimum 8 percent increase as the going rate. If you’re asking for less than that for your next budget, maybe you should present your board with your Application Backlog Index.

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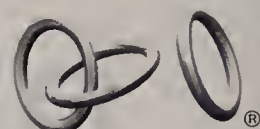
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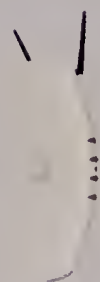
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Editor Edward Prewitt at
hotseat@cio.com.

The Career Path of the Complete CIO

The verdict is in: Business skills trump technology

BY TED SMALLEY BOWEN

Mike Hugos followed a fairly conventional route to the CIO's office, gaining experience and credentials through a series of all-IT positions. After working as a programmer-analyst, he started a systems design and software development business, and then went into corporate IT, with a side trip in IT consulting.

But when it came time to round out his skills in graduate school, Hugos looked outside IT, opting instead for an MBA with a concentration in finance. "I feel very strongly that CIOs need to have an MBA, not a master of computer science [degree]," says Hugos, CIO of Network Services, a multibillion-dollar distributor of basic goods.

"Business is not about technology; it is about using technology to make money. I find that most IT people simply do not understand that," says Hugos. "They often look down on simple solutions and instead engage in complex, expensive projects that in the end don't deliver. Business needs solutions, not cool technology."

The argument over the best mix of skills and experience for the corporate CIO is likely to continue as long as the job exists. Witness the flood of responses to Jerry Gregoire's recent column, "The Vanishing IT Department" (www.cio.com/printlinks), in which he asserted, "CIOs with no formal training or long-term experience in IT are not CIOs."

While there's no optimal model for the job, CIOs and expert observers generally agree that what's needed is a combination of IT and business knowledge and experience. But there is a consensus that without business skills and the ability to

translate IT into business terms, IT heads are at a disadvantage—no matter how good their technical skills are.

In "The State of the CIO 2004" survey, 70 percent of the 540 respondents said their primary job experience leading to the CIO spot was in IT. Consulting



Effective IT execs use technical depth in the service of business problems, says Mike Hugos, CIO of Network Services.

and business operations were each cited as primary job backgrounds by 7 percent and finance-accounting by 5 percent.

But while IT was the most common *primary* job experience for survey respondents, many said they had job experience in other, non-IT fields: 62 percent in consulting, 45 percent in non-IT business operations, 34 percent in administration, and about 25 percent in each of the areas of customer service, engineering, and finance or accounting. (For full survey results, see "The Survey: It's

Hot Seat

All About You," Page 57.) This data shows a significant amount of non-IT business experience—a far cry from the almost all-IT

CIO track of past decades.

The increase in CIOs from non-IT backgrounds is "a paradigm shift," says Ellen Kitzi, Gartner Executive Programs' group vice president for the Americas. "Thirty to forty percent or more in our service [clientele] don't have a traditional IT background, but a business background."

At the same time, she says, "I expect a bit of a pendulum adjustment. There's something about being a good technologist that's key to being a good CIO." The debate over job background boils down to this, Kitzi says: "What combination of training and experience best prepares a CIO to put IT to productive use?"

It's the Business, Stupid

A typical summary of CIO job requirements includes an in-depth understanding of IT, some serious business experience and the ability to explain technology in business terms. "A CIO first has to be a businessperson who understands the mission of the business, can suggest automation solutions that support that business, and can also provide C-suite advice with respect to the possibilities and limitations of technology," says John Wade, vice president and CIO of Saint Luke's Health System. Wade's CV is highlighted by IT experience in the manufacturing and health-care sectors, and a stint in IT consulting.

An increasing number of organizations are looking to CIOs to help determine their overall strategic direction, according to Mark McDonald, group vice president and head of research for Gartner Executive Programs.

Citing Gartner data, McDonald thinks that many CIOs see their roles as moving beyond providing basic IT services to

managing business processes that affect bottom-line performance, innovation and delivering business services.

The tech-MBA and other hybrids are standard academic fare, and few straight MBA programs ignore the business uses of IT, so there's no lack of executive timber with roots in both worlds. And executive training courses can fill in gaps for both business and IT specialists.

But at the CIO level, a diploma isn't enough; you need a track record, says

mindful CIOs often need training in finance—from the basics of budgeting to the vagaries of option pricing, and mergers and acquisitions. They also usually benefit from a better grasp of career development—their own and their staff's.

On the flip side, executives lacking serious IT experience are moving into CIO positions. "We're seeing more people who have a line-of-business background assuming the role of CIO. It's more of a COO type, a nontechnical person who has come

DELEGATION

Is CIO a One-Person Job?

Like the "ideal candidate" section of any high-end want ad, the full range of education, skills and experience sought in corporate CIOs is daunting. As both business and technical demands increase, the question is whether it's too much for one person.

"It's a case of looking for that superstar who can do both. It's the equivalent of looking for a CFO who knows the business," says Mark Polansky, North

American sector leader for the IT officers practice at executive search firm Korn/Ferry International.

At the same time, any senior executive needs strong lieutenants. "A lot of CIOs have a chief of staff who's able to handle some of the daily operations," says George Westerman, a research scientist at the MIT Sloan School's Center for Information Systems Research.

—T.S.B.

Rich Brennen, global leader for the CIO practice at executive search firm Spencer Stuart Management Consultants.

"I don't think I would [equate] the word 'MBA' with business skills," Brennen says. "An increasing portion of top CIOs have MBAs, but school isn't the same as business experience."

How to Gain the Skills You Lack

CIOs who come up through the IT ranks typically gain business experience by managing operations or development, serving as CIO of a business unit, or acting as a liaison between business and IT groups, according to Peter Weill, director of the MIT Sloan School's Center for Information Systems Research.

To round out their portfolios, these IT-

to be CIO through running a line of business that's had a lot of technology in it," Weill says. "A number of organizations are [putting] the CIO position on the executive development path."

This approach gives promising business managers the option of aiming for CIO and makes IT a core component of learning the overall business, rather than an isolated specialty. As a result, notes Weill, there are now many more paths to and from the position of CIO.

Some CIOs have hit upon unique training arrangements. In addition to the several technology and management courses she tries to enroll in each year, Coco Kagan, CIO and senior vice president at Sunrise Senior Living, has arranged some one-on-one consulting. "I



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convinced the executive team that I need an adviser, and I hired my old CIO, who had retired. It's an ongoing mentoring relation-

ship," says Kagan, who started out on the operations side of the hospitality business and moved over to IT.

Bob Wittstein, vice president for IT and CIO at Sappi Fine Paper North America, has a mechanical engineering degree and a professional background in manufacturing technology, supply chain and IT project management. His continuing-ed curriculum has been composed of general management courses, but he plans to enroll in finance courses in the future.

"It's a matter of getting the financial expertise to be able to look at a balance sheet to understand what the trends are telling you and where to go looking forward, and take it that next step to apply it to the decision-making process," he says.

Macroeconomics can predispose the CIO's employer to look for certain skills. "During the downturn, there was obviously a premium on those IT leaders who were adept at cost avoidance," says Mark Polansky, North American-sector leader for the IT officers practice at recruiting firm Korn/Ferry International.

But CIOs are expected to be able to handle both lean and fat years, plan long-term IT strategy and contribute to the organization's overall direction.

CIOs can also benefit from time behind the lectern. "An excellent way for CIOs to learn, acquire a balanced perspective and sharpen presentation skills is to teach," says Jim Nanton, CIO of Sara Lee Branded Apparel, who has been a guest lecturer at Wake Forest University. Nanton's work experience includes a decade in financial services IT and divisional CIO positions.

The "I" in CIO

There are pitfalls in emphasizing business

MANAGEMENT REPORTS Who Really Runs IT?

The many methods of IT governance

The governance of IT is the ultimate measure of a CIO's influence. Who makes the decisions about IT spending? And who makes the rules about the decisions? In "The State of the CIO 2004" survey, 99 percent of the 544 heads of IT who responded said that IT spending is centrally controlled by the IT organization. So far, so good.

However, 56 percent of the same IT chiefs also said that spending is jointly managed by IT and business units or functions; 6 percent went on to say business units or functions handle IT spending decisions themselves.

These seemingly contradictory states of governance are able to coexist because many companies employ multiple methods of IT governance. That's a good thing, according to the Center for Information Systems Research (CISR) at MIT's Sloan School of Management. In its own survey of 256 enterprises in 23 countries (released in 2003), CISR found that decisions are made in different ways for different types of IT spending. When deciding on IT architecture and IT infrastructure, an "IT monarchy" most often made the call. A minority of organizations surveyed used a "duopoly" approach for IT architecture and IT infrastructure decisions, defined as IT executives working jointly with one other group such as business unit leaders.

For more business-oriented IT decisions (such as the setting of strategic IT principles, IT investment priorities and business application needs), CISR found that the business

side, not surprisingly, played a bigger role. But the nature of the business involvement varied greatly.

For high-level decisions on the strategic role of IT, one-third of the organizations surveyed used a duopoly approach. One-fourth delegated decision-making authority completely to business executives—a business monarchy, in CISR's



terminology. IT investment priorities were made in three equally prevalent ways: by business monarchies, by duopolies and with a federal model—that is, CXOs (often including the CIO) negotiating with business units. Finally, decisions on business applications tended to be made by federal groups and duopolies.

Business influence over IT governance appears to be growing. Another study on governance issues was conducted by the Cutter Consortium consultancy, of 252 companies in 2003 and 2004. When asked whether business units' control over their IT applications had changed in the past three years, 43 percent said business units had more control. Only 14 percent said business units had less control.

—Edward Prewitt

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skills at the expense of core IT, cautions Gartner's Kitzis.

For example: "If you don't have deep core competencies in technical skills or the ability to understand which of the current competencies you need, there may be a tendency to devalue those [IT] skills and make the decision to outsource way too quickly," she says.

But when CIOs have the proper grounding in both technology and business, Kitzis says, "There is an opportunity for IT not just to enable or contribute

"Business and political savvy are as important as—if not more than—technical savvy. If you don't know how to deal in that environment, you're dead."

—Richard Eshbach, CIO and director of IS, Mountain States Health Alliance

to business success, but to present IT initiatives that actually drive the business."

And pulling that off requires a command of both technology and the complex social interactions of business. "Business and political savvy are as important [as]—if not more than—technical savvy," says Richard Eshbach, CIO and director of information services for Mountain States Health Alliance. "If you don't know how to deal in that environment, you're dead." **CIO**

Ted Smalley Bowen (tbowen@trnmag.com) is a Boston-based freelance writer covering technology and general interest topics.

Leadership Agenda BY SUSAN H. CRAMM

It's Never Too Late for Time Management

You can't be a good manager until you learn to manage your own time



Leadership jobs should come with a warning label: "Beware of meaningless tasks masquerading as fundamental job duties." As a case in point, meet Sam. By looking at him, you wouldn't guess that he is being managed by his job. He's bright, aggressive and results-oriented, with a track record of success. As a reward for his accomplishments, he's recently been given a role

that is 10 times bigger in scale compared to his previous responsibilities. He arrives at the office at 7:00 a.m. and leaves at 8:00 p.m. His desk is a mess, his e-mails aren't answered in a timely fashion, and his calendar is booked solid. His wife and children miss him, and his boss wants a strategy.

Sam's a busy guy. Unfortunately, he's too busy doing the wrong things to think much about the right things. Many of you are in the same untenable position as Sam—working too many hours and lacking the time to find a better way. Psychologists say that some people are chronic time abusers because of deep-seated needs for control, approval or a fear of being evaluated. For others, the underlying psychological motive confounding good time management is tied to an uncertainty of trusting—and acting on—one's own judgments.

While we all have our own personal neuroses, it's my experience that most people don't actively manage the content of their jobs; they have been lulled into the illusion of busyness by the steady drumbeat of e-mails, meetings, reports, presentations and telephone calls that constitute corporate life.

To gain control over your professional (and personal) life, you have to gain control over your calendar. You must eliminate the meaningless distractions and focus your efforts where they count. Much like gaining control over your finances, managing your time requires understanding where your time is going, outlining your priorities, defining a time budget and plan, changing behavior and monitoring the results.

WHERE DOES THE TIME GO? Analyze your calendar over the past four to eight weeks and figure out where you spent your time. Sam, for instance, was spending 10 hours per week on managing two large projects, 10 hours discussing minor projects, and another 10 hours responding to e-mails and open-door "drop-by" visits.

KNOW THYSELF. Identify how you want to allocate your time by answering

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the following questions: When and how much do I want to work? What do I want to achieve in my job? What

activities are essential to my success? What activities do I disdain? These questions may sound pretty basic, but answering them requires a good understanding of your job, a long-term plan to drive your tactical objectives, and the self-awareness to know which responsibilities you should keep and which you should delegate.

DO THE MATH. Define a time budget by translating your goals into daily and weekly time budgets. Compare your budget to your calendar analysis to determine the "gap" you need to close. For example, Sam needs to reduce his overall workweek by seven-and-a-half hours, while finding an additional four hours to meet with peers and eight hours for planning.

MAKE IT SO. Outline a plan to close the gap between the current and target time allocations. Sam was able to close his almost 20-hour gap by:

- ▶ Reducing his involvement on the major initiatives through appropriate delegation
- ▶ Consolidating minor project discussions into the existing weekly one-on-one meetings with his direct reports
- ▶ Reducing drop-by visits by introducing brown bag lunches, thereby ensuring he was available to people on his schedule—not theirs
- ▶ Delegating the majority of e-mail to his assistant and coaching his staff to modify their e-mail usage

START A SUPPORT GROUP. Implement and monitor the calendar changes by getting others involved with your plan. Your assistant and direct reports are essential participants, because your plan will require

that they take on tasks you can no longer afford to perform. Ensure that they understand their responsibilities, your expectations and the best way to help you.

Many people have difficulty managing through this process on their own, so they find a trusted adviser to help them understand the implications of calendar analysis, challenge their thinking on high- and low-value activities, and hold them accountable for behavior changes. Sam and others who have been through this process have slowed the drumbeats, learned new skills and created their own management rhythm.

Reader Q&A

Susan H. Cramm answers questions on "It's Never Too Late for Time Management"

Q: My problem areas are two that you say people should focus their time on: Informal influence, which to me is "management by walking around," and monitoring (my staff, IT dashboards, IT spending, project milestones...the list goes on) take a huge amount of time and leave me little time for other things. Yet, these two things are absolutely essential to my job.

A: I have one observation and one recommendation. The observation: You are doing too much and must do less. Chart your activities on a scale of important versus urgent. Eliminate the unimportant and delegate the urgent so that you can spend your time on the important. Then, spend a week examining urgent or important activities you are involved with that do not require your unique skills and delegate them as well.

The recommendation: Understand where Pareto lives in your organization. Identify the 20 percent of proj-

ects, departments, direct reports or processes that constitute the most risk, deliver the most value and consume the most money. Spend your time proportionately on these.

Q: Far from meaningless distractions, "the steady drumbeat of e-mails, meetings, reports, presentations and telephone calls" is corporate life. That is, these forms of communication are how corporate decisions get made. I suggest that the only way to make these things manageable is an organizationwide agreement on how communication is done. Courses on e-mail etiquette, time limits on meetings, a ban on PowerPoint—these kinds of things can be very effective. Without everyone working together to reduce the time wasted on busywork, an individual will inevitably get swamped.

A: These drumbeats may constitute corporate life, but they are merely the means to the end. If you don't have time to think and plan, you can convince yourself that attending to these activities constitutes a good day's work. Good leaders set the tempo of their organizations by anticipating the future, managing up and out, implementing effective processes, delegating appropriately and, to your point, establishing codes of conduct (including communication etiquette).

Also, many leaders work in organizations that require large amounts of what is called "system-imposed time." They may not be able to exert the influence necessary to effect the type of changes you recommend. **CIO**

For more reader questions and answers from Susan H. Cramm, go online to www.cio.com/leadership/agenda.html. Cramm is founder and president of Valuedance (www.valuedance.com), an executive coaching firm in San Clemente, Calif. You can send reader feedback by e-mail to susan@valuedance.com.



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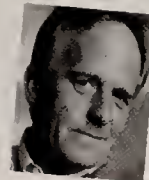
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EXECUTIVE

Summaries

October 1, 2004

SPECIAL REPORT: "The State of the CIO 2004"

The Survey: It's All About You By Edward Prewitt, with Lorraine Cosgrove Ware | 57

JUDGING BY THE NUMBERS, CIOs are still feeling the effects of 2003's tight budgets. IT's "recovery" seems to be lagging behind the general economic rebound. The average salary for CIOs dropped 3 percent from last year. Average headcount in IT departments was down from 98 to 89, and IT budgets as a percent of overall revenue slipped to 5.6 percent (from 6.3 percent last year). Only about half of the CIOs surveyed said they will increase their staffs in the next 12 months. Unrealistic or unknown expectations from the business, inadequate budgets, and a lack of time for strategic thinking and planning are the greatest barriers to CIO effectiveness. To succeed in this pressure-packed environment, CIOs identified several IT best practices, including forming healthy relationships with other CXOs, joining the executive team and aligning IT objectives with the CEO's objectives.

CIO and CEO: How to Work with Your Boss By Meridith Levinson | 78

THERE'S A DISCONNECT BETWEEN how CIOs view themselves and their impact on the business and how their bosses see them. While "The State of the CIO 2004" survey data shows that most CIOs think of themselves as full partners in the business and consider their role to be a strategic one, many of their actions tend to be more tactical, and this fuels the perception among CEOs that the IT chief and his domain are indeed more supportive than strategic or innovative. CIOs can fight this perception (and better align their self-image with the reality in the executive suite) by making sure that those tactical priorities are well managed, and then devising creative ways to use technology to leapfrog the competition and expand the business. It's also essential for CIOs to promote their agendas to the executive committee and the board.

Cost-Cutting Versus Innovation: Reconcilable Differences

By Ben Worthen | 88

AFTER BEING HECTORED AND PUMMELED to cut costs the past three years, CIOs have fully internalized this goal as a top priority and the leading contribution that IT will make to the business. But now CEOs tell us in "The State of the CIO 2004" survey that they want IT to provide them with a competitive advantage while achieving better alignment with the rest of the business. Only 30 percent of the CEOs surveyed said that controlling IT costs was what they were looking for. Clearly, this is a mixed message, and it's driving CIOs nuts. Today, more than ever before, CIOs need to serve two masters. On one hand, they need to keep costs down to please the COO and CFO; on the other, they need to keep investing in IT projects that will give the company a competitive advantage and satisfy the CEO. It's up to the CIO to bridge this gap by creating alliances with business peers championing visionary projects, shifting costs from overhead to innovation, and tempering their CEO's expectations with a dose of reality.

The No. 1 Challenge: Managing Expectations By Thomas Wailgum | 96

IN "THE STATE OF THE CIO 2004" SURVEY, CIOs identified "unrealistic or unknown expectations from the business" as the greatest challenge to their ability to do their jobs effectively. Proactively managing expectations is critical to CIO success because it leads to better IT governance, better alignment with business strategy and better project management. CIOs have found that they have more success managing expectations when they get their own IT house in order first, pay close attention when business managers discuss their goals and needs, educate business execs about the costs of IT and the siren song of vendor sales pitches, and get IT on the CEO's strategy-setting agenda.

What Really Matters: Staying in the Game

By Stephanie Overby | 68

ACCORDING TO "The State of the CIO 2004" survey, this is not a great time to be a CIO. The increased intensity of government regulation and the oversight that comes with it, the unabating emphasis on cost-cutting, the threat of outsourcing—all require that CIOs be innovative, yet at the same time be risk-averse. They have to find ways to meet conflicting expectations and bridge executive disconnects. And they must continue to justify their role and department by demonstrating the strategic value of their efforts while under the most intense executive scrutiny ever. For most CIOs, the key to success in this somewhat harsh environment is maintaining a seat at the executive table. Successful CIOs are doing this by making the most of their reporting relationships, aligning themselves with key players in the business, creating a strategic plan for IT and providing real returns for the business.

"Part of success as a CIO is facing up to the reality you're in. You can spend a lot of time whining about it. Or you can deal with it and move ahead."

—KEN MEIDELL, CIO, CASCADE DESIGNS

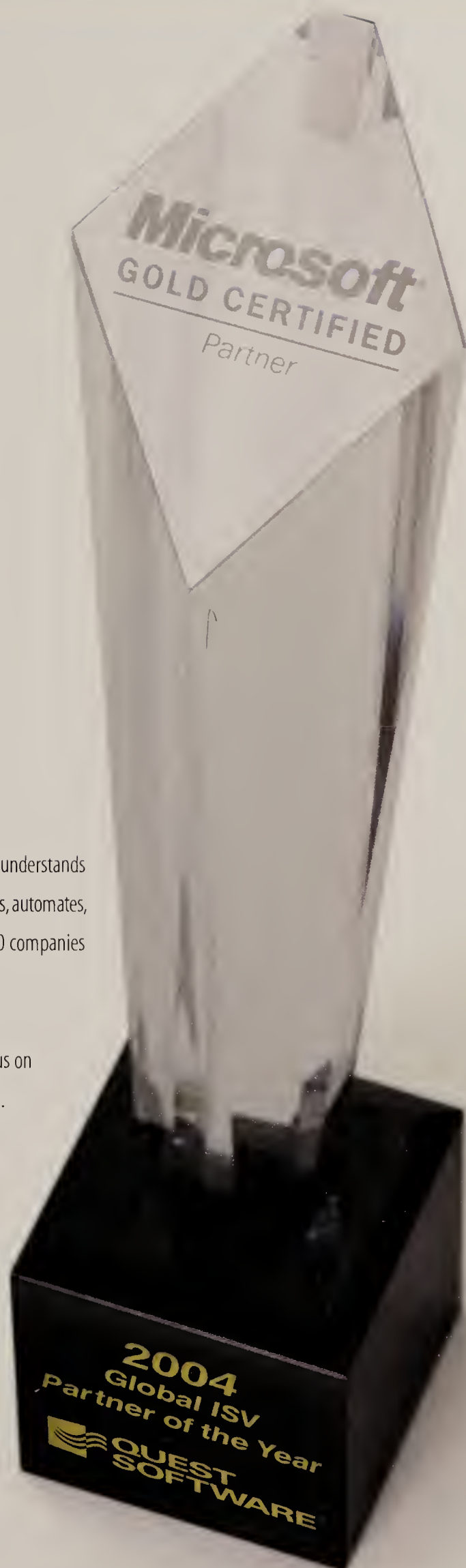
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